

Year 1

| Term                   | <u>Autumn 1</u>                                                                                                                                                                                   |                                                                                                                                                   | <u>Autumn 2</u>                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <u>Y1 - Where the Wild Things Are</u>                                                                                                                                                             |                                                                                                                                                   | <u>Y1 - The Queen's Hat</u>                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                   |
| Science Topic          | Everyday Materials: Identifying and Sorting                                                                                                                                                       |                                                                                                                                                   | Seasons: Autumn                                                                                                                                                                                                                                                                                                                                                  | Everyday Materials: What are toys made from?                                                                                                                                                      |
| Working Scientifically | 2. I can observe closely, using simple equipment.<br>3. I can perform simple tests.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions. |                                                                                                                                                   | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>3. I can perform simple tests.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions.<br>6. I can gather and record data to help in answering questions. | 2. I can observe closely, using simple equipment.<br>3. I can perform simple tests.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions. |
| Videos                 | <a href="#">Materials and their Properties</a><br><a href="#">Physical Properties of Materials</a>                                                                                                |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                   |
| Educational Visit      | 1                                                                                                                                                                                                 | <a href="#">Soanes Centre: Materials</a>                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                  | 2 Museum of Childhood                                                                                                                                                                             |
| Practical Activity     | 2                                                                                                                                                                                                 | <a href="#">STEM activity: Resource: Useless Umbrella pages 76 - 79</a><br>To carry out an experiment to find out which materials are waterproof. | Autumn Walk                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                   |
| Learning Intentions    | 3                                                                                                                                                                                                 | To identify and sort a variety of common materials.<br><b>Matching materials to their names.</b>                                                  | 1 To find out what the weather is like in Autumn.<br><b>Observing the weather and the trees in Autumn.</b>                                                                                                                                                                                                                                                       | 3 To identify and name a variety of everyday materials used to make toys.<br><b>Looking at different toys to work out what materials they are made from.</b>                                      |
|                        | 4                                                                                                                                                                                                 | To distinguish between an object and a material.<br><b>Naming objects and identifying the material they are made from.</b>                        |                                                                                                                                                                                                                                                                                                                                                                  | 4 To explore and describe wooden toys and their properties.<br><b>Identifying what sort of toys are made from wood and why.</b>                                                                   |
|                        | 5                                                                                                                                                                                                 | To describe materials according to their properties.<br><b>Looking and touching different materials.</b>                                          |                                                                                                                                                                                                                                                                                                                                                                  | 5 To explore and describe plastic toys and their properties.<br><b>Identifying what sort of toys are made from plastic and why.</b>                                                               |
|                        | 6                                                                                                                                                                                                 | To describe why some materials suit certain objects better than others.<br><b>Testing different objects.</b>                                      |                                                                                                                                                                                                                                                                                                                                                                  | 6 To explore and describe fabric toys and their properties.<br><b>Identifying what sort of toys are made from fabric and why.</b>                                                                 |

|            |                                                                                                                                       |                                                                                                                           |                                                                                                                        |                                                                                                           |
|------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Resources  | <p>Objects made from:</p> <p>Wood</p> <p>Plastic</p> <p>Glass</p> <p>Metal</p> <p>Fabric</p>                                          | <p>Pipettes</p> <p>Food colouring</p> <p>Beakers or jars</p> <p>Paper towels</p> <p>Plastic, sponge, card, foil, wood</p> |                                                                                                                        |                                                                                                           |
| Assessment | <p>Children to match pictures of objects with types of materials that are suitable for the objects to be made of (cut and stick).</p> |                                                                                                                           | <p>Children colour in a picture of a tree with leaves and draw the sort of weather that they would see in the sky.</p> | <p>Children to match pictures of different toys with the material they are made from (cut and stick).</p> |

Year 1

| Term                   | Spring 1                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                         |                                                                                                                                                                                  |                                                                                                                                                                                                                               | Spring 2                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                 |                                                                                                                                                                                  |                                                                                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | Y1 – The Night Box                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                         |                                                                                                                                                                                  |                                                                                                                                                                                                                               | Y1 – Oi Frog                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                 |                                                                                                                                                                                  |                                                                                                                                                                                                                                        |
| Science Topic          | Seasons: Winter                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                         | Animals Including Humans: Comparing and Sorting Animals                                                                                                                          |                                                                                                                                                                                                                               | Seasons: Spring                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                 | Animals Including Humans: Identifying and Naming Animals                                                                                                                         |                                                                                                                                                                                                                                        |
| Working Scientifically | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>3. I can perform simple tests.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions.<br>6. I can gather and record data to help in answering questions. |                                                                                                                                                                                                                         | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>4. I can identify and classify. |                                                                                                                                                                                                                               | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>3. I can perform simple tests.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions.<br>6. I can gather and record data to help in answering questions. |                                                                                                                                                                                 | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>4. I can identify and classify. |                                                                                                                                                                                                                                        |
| Videos                 | <a href="#">The British Winter</a>                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                         | <a href="#">Identifying animals as birds, reptiles or mammals</a>                                                                                                                |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                 |                                                                                                                                                                                  |                                                                                                                                                                                                                                        |
| Educational Visit      |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                         |                                                                                                                                                                                  |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                  | 2                                                                                                                                                                               | <a href="#">Soanes Centre: Pond Life</a>                                                                                                                                         |                                                                                                                                                                                                                                        |
| Practical Activity     |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                         | 2                                                                                                                                                                                | <a href="#">STEM activity: Animal Adventure pages 4 - 7</a> Ask Tim to help                                                                                                                                                   | Spring Walk                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                 |                                                                                                                                                                                  |                                                                                                                                                                                                                                        |
| Learning Intentions    | 1                                                                                                                                                                                                                                                                                                                                                                | To observe and describe weather associated with the seasons. To know that the night sky comes earlier in the winter months.<br><b>Observing the weather, dawn and dusk the trees and the clothes we wear in Winter.</b> | 3                                                                                                                                                                                | To identify and name common animals and explain how some animals adapt to winter.<br><b>Looking at animal adaptations such as thicker fur and hibernation.</b>                                                                | 1                                                                                                                                                                                                                                                                                                                                                                | To know that days start to get longer again when spring arrives. To know that plants start to grow again.<br><b>Observing the weather and trees and other plants in Spring.</b> | 3                                                                                                                                                                                | To identify, name and sort animals that are herbivores, carnivores and omnivores.<br><b>Looking at different animal diets.</b>                                                                                                         |
|                        |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                         | 4                                                                                                                                                                                | To describe and compare the structure of different animals, including birds, amphibians, reptiles, mammals and insects.<br><b>Looking at different types of animals and sorting them by their observable characteristics.</b> |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                 | 4                                                                                                                                                                                | To identify and name a variety of common UK mammals.<br><b>Thinking about mammals that they see in their local environment and then at mammals that are found further afield.</b>                                                      |
|                        |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                         | 5                                                                                                                                                                                | To identify and name the basic parts of the human body.<br><b>Drawing and labelling the human body.</b>                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                 | 5                                                                                                                                                                                | To identify and name a variety of common UK birds, reptiles, fish & amphibians.<br><b>Thinking about birds, reptiles, fish &amp; amphibians that they see in their local environment and then those that are found further afield.</b> |
|                        |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                         | 6                                                                                                                                                                                | To name the five senses and perform simple tests to find out more about them.                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                 | 6                                                                                                                                                                                | To find out how to take care of animals.                                                                                                                                                                                               |

|            |                                                                                                                                      |                                                                                                       |                                                                                                                                           |  |  |                                                                                                                                           |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------------------------------|
|            |                                                                                                                                      |                                                                                                       | Testing their senses using different smells, tastes, textures and sounds.                                                                 |  |  | Thinking about what we can do to look after the animals that we see in our local environment eg bird feeders and putting rubbish in bins. |
| Resources  |                                                                                                                                      |                                                                                                       |                                                                                                                                           |  |  | i pads<br>Lilies<br>Buckets for collecting leaves                                                                                         |
| Assessment | Children colour in a picture of a tree without leaves and draw the sort of weather that they would see in the sky and on the ground. | Children to answer questions for a multiple choice quiz by holding up a choice number cards 1,2 or 3. | Children colour in a picture of a tree with leaves that are starting to grow and draw the sort of weather that they would see in the sky. |  |  | Children to do an cut and stick activity where they choose an animal and decide what they need to do to look after it properly.           |

| Year 1                 |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Term                   | <b>Summer 1</b>                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        | <b>Summer 2</b>                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
| Book                   | <u><b>Y1 – Moles Star/ The Tiny Seed</b></u>                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                        | <u><b>Y1 – Manfred the Baddie</b></u>                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
| Science Topic          | Plants: Growing a Bean and Naming Plants and Trees                                                                                                                                                                                                                                                                             |                                                                                                                                                                                        | Seasons - Summer                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                            | Plants: Looking Closely at Plants and Seeds                                                                                                                                                                                                                                                                                                        |
| Science Week           |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            | Visit to Victoria Park with Wild Capital.                                                                                                                                                                                                                                                                                                          |
| Working Scientifically | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions.<br>6. I can gather and record data to help in answering questions. |                                                                                                                                                                                        | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>3. I can perform simple tests.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions.<br>6. I can gather and record data to help in answering questions. |                                                                                                                                                                                                                                            | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions.<br>6. I can gather and record data to help in answering questions.                     |
| Wow Activity           |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
| Educational Visit      |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  | 1                                                                                                                                                                                                                                          | Visit to Victoria Park with Wild Capital                                                                                                                                                                                                                                                                                                           |
| Practical Activity     | 1                                                                                                                                                                                                                                                                                                                              | Looking at plants & trees around the school grounds (Tim)<br><a href="#">STEM activity: Discovery Bag pages 20 - 23</a>                                                                |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
| Learning Intentions    | 2                                                                                                                                                                                                                                                                                                                              | To plant a bean and observe its growth over time.<br><b>Planting a bean in a plastic cup so that the germination process can be observed.</b>                                          | 1                                                                                                                                                                                                                                                                                                                                                                | To know that days start to get longer again when Summer arrives. To know that there is much less rain and the temperature is hotter in Summer.<br><b>Observing the weather, dawn and dusk the trees and the clothes we wear in Summer.</b> |                                                                                                                                                                                                                                                                                                                                                    |
|                        | 3                                                                                                                                                                                                                                                                                                                              | To understand and explain what plants need to be able to grow well.<br><b>Doing an experiment where plants are kept in different conditions to find out what makes them grow best.</b> |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
|                        | 4                                                                                                                                                                                                                                                                                                                              | To record their observations of how their bean grew.<br><b>Keeping a diary of how their bean plant grows.</b>                                                                          |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
|                        | 5                                                                                                                                                                                                                                                                                                                              | To identify and describe the parts of plants and trees.<br><b>Looking at a variety of different plants and trees and making sure they know the names of their parts.</b>               |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
|                        | 6                                                                                                                                                                                                                                                                                                                              | To identify and name some garden plants.<br><b>Looking at plants around the school grounds and finding out what they are called.</b>                                                   |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                    |
|                        |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  | 2                                                                                                                                                                                                                                          | To identify trees by their leaves. (Use the app Picture This to help identify trees).<br><b>Collecting leaves from different trees from the school grounds and Victoria Park and matching them to trees that grow in the local area.</b>                                                                                                           |
|                        |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  | 3                                                                                                                                                                                                                                          | To look at different trees in the local area and find out what animals like or live in them. (Link to work done in Spring Term about animals in the local environment).<br><b>Thinking about the animals that they found out live locally and looking at where they might live.</b>                                                                |
|                        |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  | 4                                                                                                                                                                                                                                          | To look at different flowering plants in the local area and find out what animals like or live in them. (Link to work done in Spring Term about animals in the local environment).<br><b>Using i pads to take photos of flowers in the school grounds and Victoria park and then finding out what they are using a chart to compare them with.</b> |
|                        |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  | 5                                                                                                                                                                                                                                          | Dissect a flower and look at the different parts.                                                                                                                                                                                                                                                                                                  |

|            |                                                                                                         |  |                                                                                                                 |                                                                                                                                                                                                          |
|------------|---------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                                                                                                         |  |                                                                                                                 | Looking at the inside of a flower and thinking back to the parts of a plant that they learned about earlier in the term.                                                                                 |
|            |                                                                                                         |  |                                                                                                                 | 6 Look at different seeds and match them to the plants they will grow into. Is there a correlation between colour or size when comparing the seed to the plant?<br>Photos of different seeds and plants. |
| Resources  |                                                                                                         |  |                                                                                                                 |                                                                                                                                                                                                          |
| Assessment | Label parts of a plant – independent cut and stick activity and match to definition of their functions. |  | Children colour in a picture of a tree with leaves and draw the sort of weather that they would see in the sky. | Children to match local animals to parts of a habitat; plants, trees, ponds, holes in the ground etc.                                                                                                    |

| Term                   | <u>Autumn 1</u>                                                                                                                                                 |                                                                                                                                                                                                                  | <u>Autumn 2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <u>Y2 – Meerkat Mail</u>                                                                                                                                        |                                                                                                                                                                                                                  | <u>Y2 – The Way Home for Wolf</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                     |
| Science Topic          | Living Things and Their Habitats: Life Processes in Plants and Animals                                                                                          |                                                                                                                                                                                                                  | Animals Including Humans: Diet and Changes as Animals Grow                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                     |
| Learning Link Back     | - Observe changes across the four seasons.                                                                                                                      |                                                                                                                                                                                                                  | - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.<br>- Identify and name a variety of common animals that are carnivores, herbivores and omnivores.<br>- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).<br>- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. |                                                                                                                                                                                     |
| Working Scientifically | 2. I can observe closely, using simple equipment.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions. |                                                                                                                                                                                                                  | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>3. I can perform simple tests.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions.<br>6. I can gather and record data to help in answering questions.                                                                                                                                                                            |                                                                                                                                                                                     |
| Videos                 | <a href="#">Mrs Gren</a><br><a href="#">It's Alive!</a><br><a href="#">Things Around Us</a>                                                                     |                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |
| Educational Visit      | 6                                                                                                                                                               | <a href="#">London Zoo: Colour, Pattern and Camouflage</a>                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Hire a Hen                                                                                                                                                                          |
| Practical Activity     | 1                                                                                                                                                               | To learn about the 7 life processes.<br>Using 'Mrs Gren' to remember the 7 life processes.                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |
| Learning Intentions    | 2                                                                                                                                                               | To know that things are living, dead or never been alive.<br>Exploring and comparing the differences between things that are living, dead, and things that have never been alive.                                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To find out the baby names of animals and know that these offspring will grow into adults.<br>Exploring how different kinds of animals and their offspring grow into adult animals. |
|                        | 3                                                                                                                                                               | To learn about the school habitat, looking at different plants and animals within the school grounds. (Tim)<br>Making a list of plants and animals and writing short observations of them.                       | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To find out how different animals have babies.<br>Exploring the different ways that animals have babies.                                                                            |
|                        | 4                                                                                                                                                               | To learn about some world habitats – link to Africa study.<br>Explaining why certain animals aren't suited to some habitats.                                                                                     | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To know how humans change as they get older.<br>Comparing the different stages humans go through as they grow to adulthood.                                                         |
|                        | 5                                                                                                                                                               | To describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.<br>Arranging a food chain in the correct order. | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To find out what animals need to survive.<br>Looking at what we need to do to look after a pet so it stays healthy.                                                                 |
|                        |                                                                                                                                                                 |                                                                                                                                                                                                                  | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To find out how to eat a healthy and balanced diet.<br>Finding out about different food groups and designing a healthy meal.                                                        |
|                        |                                                                                                                                                                 |                                                                                                                                                                                                                  | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To understand that exercise is important to keep our bodies healthy.<br>Finding out what happens to our bodies when we exercise and why this is important to keep them healthy.     |

|            |                                                                                            |  |                                                                                                                                                                                                                                       |  |
|------------|--------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Resources  | Magnifying glasses<br>Large sorting hoops<br>Books on desert, arctic, ocean,<br>rainforest |  |                                                                                                                                                                                                                                       |  |
| Assessment | Multiple choice quiz about 7 life processes and a simple food chain.                       |  | 1. Children to hold up cards with animal baby names on them in response to adult animals called by teacher.<br>2. Children to draw a healthy and balanced meal on a school dinner tray, labelling the foods they have chosen to draw. |  |

Year 2

| Term                   | <u>Spring 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                 | <u>Spring 2</u>                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <u>Y2 – Fantastic Mr Fox</u>                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                 | <u>Y2 – The Tin Forest</u>                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                     |
| Science Topic          | Everyday Materials: Uses of Different Materials                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                 | The Environment: Looking After Our Planet                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                     |
| Learning Link Back     | <ul style="list-style-type: none"> <li>- Distinguish between an object and the material from which it is made.</li> <li>- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</li> <li>- Describe the simple physical properties of a variety of everyday materials.</li> <li>- Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul> |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     |
| Working Scientifically | 1. I can ask simple questions and recognise that they can be answered in different ways.<br>2. I can observe closely, using simple equipment.<br>3. I can perform simple tests.<br>4. I can identify and classify.<br>5. I can use my observations and ideas to suggest answers to questions.                                                                                                                                                                  |                                                                                                                                                                                                                 | I recognise that questions can be answered in different ways.<br>I perform simple tests.<br>I use simple equipment to make measurements.<br>I gather and record simple data in different ways.<br>I talk about what I have found out.<br>I use simple scientific language. |                                                                                                                                                                                                                                     |
| Videos                 | <a href="#">Natural or Man Made</a><br><a href="#">Uses of Materials</a><br><a href="#">Sorting Materials to be Recycled</a>                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     |
| Educational Visit      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                 | 1                                                                                                                                                                                                                                                                          | <a href="#">Soanes Centre: Litter Bugs</a>                                                                                                                                                                                          |
| Practical Activity     | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <a href="#">STEM activity: Tea Bag Trouble pages 68 - 71</a>                                                                                                                                                    | 2                                                                                                                                                                                                                                                                          | To observe how the greenhouse effect raises temperature.<br><b>Performing a fair test to observe how a thermometer in a jar records warmer temperatures than an equivalent thermometer left out at room temperature conditions.</b> |
| Learning Intentions    | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To know that some materials are natural and some are man-made.<br><b>Exploring different types of materials and identifying their origins.</b>                                                                  | 3                                                                                                                                                                                                                                                                          | To find out how much water can be saved if we turn the tap off when brushing out teeth.<br><b>Performing two tests to compare the amount of water used with the tap turned on and then the tap turned off.</b>                      |
|                        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To know why glass, wood, plastic, brick, metal or paper are suitable and used for different purposes.<br><b>Exploring a range of objects and finding out the properties of the materials used to make them.</b> | 4                                                                                                                                                                                                                                                                          | To be able to explain what climate change is and understand that climate change is happening in our world.<br><b>Designing a poster to explain climate change to others.</b>                                                        |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To understand that some materials can be squashed, twisted or bent according to need.<br><b>Investigating different objects to see if their shapes can be changed.</b>                                          | 5                                                                                                                                                                                                                                                                          | To know how some animals are becoming endangered because of climate change.<br><b>Finding out about endangered animals and how they are affected by climate change.</b>                                                             |
|                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To know that some materials can be recycled and that plastic is non-biodegradable.<br><b>Designing a poster about recycling.</b>                                                                                | 6                                                                                                                                                                                                                                                                          | To learn how we can help the environment through recycling and creating less waste.<br><b>Understanding the reduce, reuse, recycle idea and applying this to everyday life in a practical way.</b>                                  |
|                        | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To know about the lives of important people who have developed useful new materials.<br><b>Finding out about Zaha_Hadid who used her knowledge of materials to design buildings.</b>                            |                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     |

|            |                                        |  |                                                                                                  |                                                                                |
|------------|----------------------------------------|--|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Resources  |                                        |  | 2 bottles (exactly the same)<br>2 corks<br>2 thermometers<br>Vinegar<br>Baking soda<br>Egg timer | Measuring spoons<br>Funnel<br>Measuring jug<br>Tissues<br>2 sun lamps<br>Tooth |
| Assessment | Children to do a multiple choice quiz. |  | Children to complete an information sheet about things they can do to look after the planet.     |                                                                                |

Year 2

| Year 2                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Term                   | <u>Summer 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      | <u>Summer 2</u>                                                                                                                                                                                                                                                                                                                                                                            |
| Book                   | <u>Y2 – Jemima Puddleduck</u>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                      | <u>Y2 – The Diary of a Killer Cat</u>                                                                                                                                                                                                                                                                                                                                                      |
| Science Topic          | Plants: What Do Bulbs and Seeds Need to Grow?                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                      | Living Things and their Habitats – Micro and Seaside Habitats                                                                                                                                                                                                                                                                                                                              |
| Science Week           |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      | Visit to London Aquarium – looking specifically at sea animals.                                                                                                                                                                                                                                                                                                                            |
| Learning Link Back     | <ul style="list-style-type: none"> <li>- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</li> <li>- Identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul>                                                                                                                                                                        |                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>- Learn about the 7 life processes.</li> <li>- Explore and compare the differences between things that are living, dead, and things that have never been alive.</li> <li>- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</li> </ul> |
| Working Scientifically | <ol style="list-style-type: none"> <li>1. I can ask simple questions and recognise that they can be answered in different ways.</li> <li>2. I can observe closely, using simple equipment.</li> <li>3. I can perform simple tests.</li> <li>4. I can identify and classify.</li> <li>5. I can use my observations and ideas to suggest answers to questions.</li> <li>6. I can gather and record data to help in answering questions.</li> </ol> |                                                                                                                                                                                                      | <ol style="list-style-type: none"> <li>2. I can observe closely, using simple equipment.</li> <li>4. I can identify and classify.</li> <li>5. I can use my observations and ideas to suggest answers to questions.</li> </ol>                                                                                                                                                              |
| Wow Activity           |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                            |
| Educational Visit      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Soanes Centre: Plant life</a>                                                                                                                                                            | <a href="#">London Aquarium: KS1 Adaptation – Commotion in the Ocean</a>                                                                                                                                                                                                                                                                                                                   |
| Practical Activity     | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">STEM activity: Plant Detectives pages 38 - 41</a>                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                            |
|                        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                | To observe and describe how seeds and bulbs grow into mature plants.<br><b>Planting seeds and bulbs.</b>                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                            |
| Learning Intentions    | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                | To understand the life cycle of plants.<br><b>Observing how seeds change as they germinate into mature plants.</b>                                                                                   | 1 To identify that most living things live in habitats to which they are suited.                                                                                                                                                                                                                                                                                                           |
|                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                | To observe how different types of plants grow.<br><b>Comparing a plant grown from a seed to one grown from a bulb.</b>                                                                               | 2 To describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.<br><b>Looking at different habitats and at the animals and plants that live there.</b>                                                                                                                                                       |
|                        | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                | To find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.<br><b>Performing a fair test to find out what plants need to grow strong and healthy.</b> | 3 To identify and name a variety of plants and animals that live in a pond microhabitat. (Tim)<br><b>Exploring pond life and identifying pond creatures.</b>                                                                                                                                                                                                                               |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      | 4 To identify the different habitats that we find in the sea environment and find out which creatures live in these.<br><b>Finding out which creatures live in the different habitats in a sea or ocean environment.</b>                                                                                                                                                                   |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      | 5 To learn the names of different types of creatures that live in the sea.<br><b>Researching sea creatures.</b>                                                                                                                                                                                                                                                                            |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      | 6 To recap work about food chains and apply these to specifically to sea creatures.<br><b>Revisiting the idea of food chains for animals that live in the sea.</b>                                                                                                                                                                                                                         |

|            |                                                                                                    |  |                                                                                                                                                                      |                                         |
|------------|----------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Resources  |                                                                                                    |  | Pond dipping nets<br>Containers to catch minibeasts<br>Magnifying glasses                                                                                            | Microscopes<br>Minibeasts cast in resin |
| Assessment | Children to draw the life cycle of any plant that they have studied using a pre-prepared template. |  | Children to do a multiple choice quiz about habitats and the creatures that live in them. Also how these habitats provide for the basic needs of animals and plants. |                                         |

Year 3

| Term                   | <b>Autumn 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                        | <b>Autumn 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <b><u>Y3 – Zoo</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                        | <b><u>Y3 – The Bear and the Piano</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                     |
| Science Topic          | Animals Including Humans: Diets and Effects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                        | Light: Reflection and Shadows                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                     |
| Learning Link Back     | <ul style="list-style-type: none"> <li>- Notice that animals, including humans, have offspring which grow into adults</li> <li>- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</li> <li>- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> </ul>                                                                                                                                                                                                         |                                                                                                                                                        | <ul style="list-style-type: none"> <li>- Observe changes across the four seasons.</li> <li>- Observe and describe weather associated with the seasons and how day length varies.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                     |
| Working Scientifically | 1. I can ask relevant questions and use different types of scientific enquiries to answer them.<br>4. I can gather, record, classify and present data in a variety of ways to help in answering questions.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>6. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.<br>8. I can identify differences, similarities or changes related to simple scientific ideas and processes. |                                                                                                                                                        | 2. I can set up simple practical enquiries, comparative and fair tests.<br>3. I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.<br>4. I can gather, record, classify and present data in a variety of ways to help in answering questions.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>6. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.<br>9. I can use straightforward scientific evidence to answer questions or to support my findings. |                                                                                                                                                     |
| Videos                 | <a href="#">Animal Diets</a><br><a href="#">Animals Eating Habits</a><br><a href="#">Animal Diets (including differences in teeth)</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                        | <a href="#">The Skeleton</a><br><a href="#">Animal Skeletons (book)</a><br><a href="#">The Musculoskeletal System</a><br><a href="#">Bones</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                     |
| Educational Visit      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | London Zoo: Bones and Movement or<br><a href="#">Natural History Museum: Pond Dipping</a>                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                     |
| Practical Activity     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                        | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="#">STEM Activity: Be Seen Be Safe p 8-11</a>                                                                                               |
| Learning Intentions    | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | To identify that they cannot make their own food; they get nutrition from what they eat.<br><b>Comparing how plants and animals obtain their food.</b> | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | To recognise that we need light in order to see things and that dark is the absence of light.<br><b>Taking part in a 'feely bag' investigation.</b> |
|                        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | To identify that animals, including humans, need the right types of nutrition.<br><b>Examining food and nutrient groups.</b>                           | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | To notice that light is reflected from surfaces (Relate to STEM activity).<br><b>Playing mirror games.</b>                                          |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                     |

|            |                                                               |                                                                                                                                                                                       |                                                  |                                                                                                                                                                           |                                                                                                                                                                                    |
|------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | 4                                                             | To identify that humans and some other animals have skeletons for support, protection and movement.<br><i>Investigating the skeletons of different animal types.</i>                  |                                                  | To recognise that light from the sun can be dangerous and that there are ways to protect our eyes.<br><i>Designing and advertising a pair of sunglasses or a sun hat.</i> |                                                                                                                                                                                    |
|            | 5                                                             | To be able to explain the main function of skeletons and identify and name bones.<br><i>Identifying the different parts of the human skeleton (Use model skeleton to show these).</i> |                                                  | 5                                                                                                                                                                         | To recognise that shadows are formed when the light from a light source is blocked by a solid object.<br><i>Investigating the best material for curtains for a baby's bedroom.</i> |
|            | 6                                                             | To identify that humans and some other animals have muscles for movement.<br><i>Examining how muscles work and investigating pairs of muscles.</i>                                    |                                                  | 6                                                                                                                                                                         | To find patterns in the ways that the size of shadows changes.<br><i>Investigating what happens when you change the distance between the object and the light source.</i>          |
| Resources  | Celery<br>Blue food colouring<br>Poster board<br>Masking tape |                                                                                                                                                                                       | Split pins<br>Large paper clips<br>Long balloons |                                                                                                                                                                           |                                                                                                                                                                                    |
| Assessment | Children to answer a multiple choice quiz.                    |                                                                                                                                                                                       |                                                  | Children to complete a simple <a href="#">crossword</a> puzzle with definitions for clues to key words from the topic.                                                    |                                                                                                                                                                                    |

Year 3

| Term                   | <u>Spring 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                      | <u>Spring 2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                     |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <u>Y3 – The Selfish Giant/The Happy Prince</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                      | <u>Y3 – Iron Man</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                     |
| Science Topic          | Rocks, Fossils and Soils                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                      | Forces and Magnets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                     |
| Learning Link Back     | - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                      | - Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                     |
| Working Scientifically | 2. I can set up simple practical enquiries, comparative and fair tests.<br>3. I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.<br>4. I can gather, record, classify and present data in a variety of ways to help in answering questions.<br>6. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.<br>7. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.<br>9. I can use straightforward scientific evidence to answer questions or to support my findings. |                                                                                                                                                                                      | 1. I can ask relevant questions and use different types of scientific enquiries to answer them.<br>2. I can set up simple practical enquiries, comparative and fair tests.<br>3. I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>6. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.<br>7. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.<br>9. I can use straightforward scientific evidence to answer questions or to support my findings. |                                                                                                                                                                                                                     |
| Videos                 | <a href="#">Rocks</a><br><a href="#">Types and Characteristics of Soil</a><br><a href="#">How do dinosaur fossils form?</a><br><a href="#">Fossils</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                     |
| Educational Visit      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <a href="#">Soanes Centre: Rocks and Weathering</a>                                                                                                                                  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <a href="#">STEM: Forces and Magnets</a>                                                                                                                                                                            |
| Practical Activity     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                     |
| Learning Intentions    | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | To compare different types of rocks based on their appearance.<br><b>Understanding the difference between natural and man-made rocks.</b>                                            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To observe how magnets attract or repel each other (magnetic poles) and attract some materials and not others.<br><b>Investigating the strength of different magnets and making a compass to hunt for treasure.</b> |
|                        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | To make systematic and careful observations of rocks.<br><b>Examining different types of rocks.</b>                                                                                  | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To investigate the effects of friction on different surfaces.<br><b>Investigating the speed of a toy car over different surfaces.</b>                                                                               |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | To identify naturally occurring rocks and explore their uses.<br><b>Naming and identifying some naturally occurring rocks and group them according to their properties and uses.</b> | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To notice that some forces need contact between two objects.<br><b>Identifying the different types of forces acting on objects.</b>                                                                                 |
|                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | To explore soil and how it is formed.<br><b>Examining the permeability of soil and explaining how it is formed.</b>                                                                  | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To identify magnetic and non-magnetic materials.<br><b>Sorting different materials after testing them.</b>                                                                                                          |
|                        | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | To explore what fossils there are and how they are formed.<br><b>Explaining the fossilisation process and by comparing fossils to the animals they belong to.</b>                    | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To explain that magnets attract some materials.<br><b>Making, playing and evaluating a magnetic game.</b>                                                                                                           |

|            |                                                                           |  |  |                             |
|------------|---------------------------------------------------------------------------|--|--|-----------------------------|
| Resources  |                                                                           |  |  |                             |
| Assessment | Children to hold up whiteboards they have written on to answer questions. |  |  | Children to do a mini test. |

Year 3

| Year 3                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                          |  |                                                                                   |                                                                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Term                   | Summer 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                          |  | Summer 2                                                                          |                                                                                                                                                                                      |
| Book                   | Y3 – The Velveteen Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                          |  | Y3 – Mary Poppins                                                                 |                                                                                                                                                                                      |
| Science Topic          | Plants: Functions of Parts of Plants                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                          |  | Plants: Pollination and Seed Dispersal                                            |                                                                                                                                                                                      |
| Science Week           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                          |  | Visit to Gillespie Park with The Garden Classroom:<br>The Wonderful World of Bees |                                                                                                                                                                                      |
| Learning Link Back     | <div>- Observe and describe how seeds and bulbs grow into mature plants.</div> <div>- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</div> <div>- Identify and name a variety of plants and animals in their habitats, including microhabitats.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                          |  |                                                                                   |                                                                                                                                                                                      |
| Working Scientifically | <div>1. I can ask relevant questions and use different types of scientific enquiries to answer them.</div> <div>2. I can set up simple practical enquiries, comparative and fair tests.</div> <div>3. I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</div> <div>3. I can gather, record, classify and present data in a variety of ways to help in answering questions.</div> <div>4. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</div> <div>5. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</div> <div>6. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</div> <div>7. I can identify differences, similarities or changes related to simple scientific ideas and processes.</div> <div>8. I can use straightforward scientific evidence to answer questions or to support my findings.</div> |                                                                                                                                                                                                                          |  |                                                                                   |                                                                                                                                                                                      |
| Wow Activity           | <a href="#">Carnivorous Plants</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                          |  |                                                                                   |                                                                                                                                                                                      |
| Educational Visit      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Soanes Centre: Wildflowers</a>                                                                                                                                                                               |  | 1                                                                                 | Visit to Victoria Park – make observations of different plants and trees, which can be sorted according to simple criteria.                                                          |
| Practical Activity     | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | To find out about the plants that grow in our local environment and about what they need to grow well.<br><div>Looking at plants and seeds around the school with Tim with a focus on what animals might eat them.</div> |  | 2                                                                                 | <a href="#">STEM Activity: Drifting Dandelions p 72-75</a> AND/OR<br><a href="#">STEM Activity: Bumblebee Mystery p36-39</a>                                                         |
| Learning Intentions    | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | To be able to identify and describe the <u>function of the roots</u> of flowering plants.<br><div>Investigating how white carnations get coloured by absorbing food colouring through their roots.</div>                 |  | 3                                                                                 | To explore the part that flowers play in the life cycle of flowering plants.<br><div>Understanding pollination and fertilization.</div>                                              |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                          |  | 4                                                                                 | To find out about pollination and the role of bees and other insects.<br><div>Researching how bees pollinate plants and therefore fertilize them.</div>                              |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | To investigate the way in which water is transported within plants.<br><div>Looking at how the stems of celery transport food colouring.</div>                                                                           |  | 5                                                                                 | To explore some of the ways in which flowering plants disperse their seeds.<br><div>Investigating the different ways that plants disperse their seeds eg dandelions or spores.</div> |
|                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | To identify and describe the function of leaves in flowering plants; Chlorophyll, oxygen and carbon dioxide.<br><div>Looking at the leaf producing gas bubbles experiment.</div>                                         |  | 6                                                                                 | Looking at time lapse videos of plants dispersing seeds and germinating.<br><div>Describing using correct vocabulary how plants disperse their seeds and how they germinate.</div>   |
| 6                      | To understand the structure of seeds and their importance as a food source.<br><div>Looking at a dried sunflower head to show how seeds are made. Show photos of animals and birds eating the seeds.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                          |  |                                                                                   |                                                                                                                                                                                      |
| Resources              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                          |  |                                                                                   |                                                                                                                                                                                      |

Assessment

Children to be asked to label a flowering plant and then write about the functions of the different parts.

Children to draw the life cycle of a flowering plant on a pre-prepared template with spaces to include explanations for each stage of the cycle.

Year 4

| Term                   | <u>Autumn 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                   | <u>Autumn 2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <u>Y4 - Phileas' Fortune</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                   | <u>Y4 – Wolves in the Walls</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                              |
| Science Topic          | States of Matter: Solids, Liquids and Gases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                   | Science in Ancient Egypt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                              |
| Learning Link Back     | - Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                              |
| Working Scientifically | 1. I can ask relevant questions and use different types of scientific enquiries to answer them.<br>2. I can set up simple practical enquiries, comparative and fair tests.<br>4. I can gather, record, classify and present data in a variety of ways to help in answering questions.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>6. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.<br>7. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.<br>9. I can use straightforward scientific evidence to answer questions or to support my findings. |                                                                                                                                                                                                                                                   | 1. I can ask relevant questions and use different types of scientific enquiries to answer them.<br>2. I can set up simple practical enquiries, comparative and fair tests.<br>4. I can gather, record, classify and present data in a variety of ways to help in answering questions.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>6. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.<br>7. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.<br>9. I can use straightforward scientific evidence to answer questions or to support my findings. |                                                                                                                                                                              |
| Videos                 | <a href="#">3 States of Matter</a><br><a href="#">States of Matter</a><br><a href="#">States of Matter and Changes of State</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                              |
| Educational Visit      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | British Museum – Egypt Galleries                                                                                                                                             |
| Practical Activity     | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">STEM: States of Matter</a>                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                              |
|                        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                              |
| Learning Intentions    | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To compare and group materials together, according to whether they are solids, liquids or gases.<br><b>Sorting and describing materials into solids, liquids and gases.</b>                                                                       | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To make sheets of paper out of scraps of old paper.<br><b>Making papyrus like the Ancient Egyptians would have done.</b>                                                     |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).<br><b>Investigating how heating and cooling can change a material's state.</b> | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To create a simple food chain.<br><b>Creating a food chain that includes a crocodile (an animal that lived – and still lives – around the river Nile in Egypt).</b>          |
|                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To associate the rate of evaporation with temperature.<br><b>Investigating the effect of temperature on drying washing.</b>                                                                                                                       | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To understand the evaporation of water in hot conditions.<br><b>Exploring ways and containers that will stop water from evaporating quickly in hot temperatures.</b>         |
|                        | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To identify the part played by evaporation and condensation in the water cycle.<br><b>Creating a model of the water cycle.</b>                                                                                                                    | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To understand that heavy objects can move more easily over certain types of surfaces.<br><b>Exploring how heavy objects move over different surfaces.</b>                    |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                   | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | To understand the process of mummification.<br><b>Conducting an <a href="#">experiment</a> where a tomato is mummified to stop it from going bad over a period of weeks.</b> |

|            |                                                                                                                                         |                                                     |                                                                                                                |                                                                                                                                                                                         |  |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|            |                                                                                                                                         |                                                     | 6                                                                                                              | To understand that animals have adapted to the conditions in which they have to live.<br>Researching dromedary camels to find out how they have adapted to living in desert conditions. |  |
| Resources  | Rice<br>Flour<br>Ice Trays                                                                                                              | Fizzy drink<br>8 large chocolate bars<br>Cornflakes |                                                                                                                |                                                                                                                                                                                         |  |
| Assessment | Children to draw a model of the water cycle on a pre-prepared template with spaces to include explanations for each stage of the cycle. |                                                     | Children to write a short newspaper article explaining one of the experiments that were done in Ancient Egypt. |                                                                                                                                                                                         |  |

Year 4

| Term                   | <u>Spring 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                           | <u>Spring 2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <u>Y4 – The Miraculous Journey of Edward Tulane</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                           | <u>Y4 – The Lion the Witch and the Wardrobe</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                     |
| Science Topic          | Electricity: Simple Electrical Circuits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           | Sound: Vibrations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                     |
| Learning Link Back     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                     |
| Working Scientifically | 1. I can ask relevant questions and use different types of scientific enquiries to answer them.<br>2. I can set up simple practical enquiries, comparative and fair tests.<br>3. I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>7. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.<br>8. I can identify differences, similarities or changes related to simple scientific ideas and processes. |                                                                                                                                                                                                                                           | 1. I can ask relevant questions and use different types of scientific enquiries to answer them.<br>2. I can set up simple practical enquiries, comparative and fair tests.<br>3. I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.<br>4. I can gather, record, classify and present data in a variety of ways to help in answering questions.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>7. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.<br>9. I can use straightforward scientific evidence to answer questions or to support my findings. |                                                                                                                                                                                     |
| Videos                 | <a href="#">Fruit Alarm Clock (from 4:47)</a><br><a href="#">The Power of Circuits</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                     |
| Educational Visit      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <a href="#">Soanes Centre: Rudolph the Red-Nosed Reindeer</a>                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                     |
| Practical Activity     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                           | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="#">STEM Activity: Hoodie Hearing p 92-95</a>                                                                                                                               |
| Learning Intentions    | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | To identify common appliances that run on electricity.<br><b>Learning to distinguish between appliances that use and do not use electricity, the different types of electricity and identify how to stay safe when using electricity.</b> | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | To find out that sounds are made when objects and materials vibrate.<br><b>Watching a video and then creating a dramatization of how sounds travel.</b>                             |
|                        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | To construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.<br><b>Creating circuits that work which contain different elements.</b>                     | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | To investigate whether sounds can travel through different materials and how they change over distance.<br><b>Making string telephones and changing lengths of the string used.</b> |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | To identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.<br><b>Visualising and testing circuits to see if the circuit is complete.</b>        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | To find out that some materials are effective in preventing vibrations from sound sources reaching the ear.<br><b>Investigating the best material for absorbing sound.</b>          |
|                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | To recognise some common conductors and insulators, and associate metals with being good conductors.<br><b>Testing different materials as part of a circuit to see whether or not they conduct electricity.</b>                           | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | To investigate how sounds can be different pitches and volumes.<br><b>Exploring how high, low, loud and soft sounds are created.</b>                                                |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                           | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | To find patterns between the pitch of a sound and features of the object that produced it.<br><b>Making a musical instrument and explaining how it works.</b>                       |

|            |   |                                                                                                                                                                                                                |  |                       |
|------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------|
|            | 6 | To recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.<br><i>Making and investigating different switches within a circuit.</i> |  |                       |
| Resources  |   |                                                                                                                                                                                                                |  |                       |
| Assessment |   | Children to do a mini test.                                                                                                                                                                                    |  | Multiple choice quiz. |

Year 4

| Term                   | Summer 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                     | Summer 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <u>Y4 – The Day I was Erased</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                     | <u>Y4 – How to Train Your Dragon</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                             |
| Science Topic          | Living Things and their Habitats: Classification of Living Things                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                     | Animals Including Humans – Diets and Effects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                             |
| Science Week           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                     | Visit to London Zoo – To look at specifically at animal diets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                             |
| Learning Link Back     | <ul style="list-style-type: none"> <li>- Explore and compare the differences between things that are living, dead, and things that have never been alive.</li> <li>- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.</li> <li>- Identify and name a variety of plants and animals in their habitats, including microhabitats.</li> <li>- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</li> </ul> |                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>- Notice that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.</li> <li>- Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li> </ul>                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                             |
| Working Scientifically | 3. I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.<br>4. I can gather, record, classify and present data in a variety of ways to help in answering questions.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>8. I can identify differences, similarities or changes related to simple scientific ideas and processes.                                                                                                                                           |                                                                                                                                                                                                                                     | 1. I can ask relevant questions and use different types of scientific enquiries to answer them.<br>2. I can set up simple practical enquiries, comparative and fair tests.<br>5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.<br>6. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.<br>8. I can identify differences, similarities or changes related to simple scientific ideas and processes.<br>9. I can use straightforward scientific evidence to answer questions or to support my findings. |                                                                                                                                                                                             |
| Wow Activity           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                     | <a href="#">Learning about Herbivores, Carnivores and Omnivores</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                             |
| Educational Visit      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <a href="#">London Aquarium: Habitats – Rainforest Adventure</a>                                                                                                                                                                    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <a href="#">Natural History Museum: Skulls, Teeth and Diet</a>                                                                                                                              |
| Practical Activity     | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | To recognise that our local environment can change in a positive or negative way (Tim).<br><u>Undergoing a habitat survey of the different living things in our local area.</u>                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                             |
| Learning Intentions    | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | To recognise that living things can be grouped in a variety of ways.<br><u>Sorting living things into a range of groups, using a range of methods such as Venn and Carroll diagrams to represent data using their own criteria.</u> | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | To describe the simple functions of the basic parts of the digestive system in humans.<br><u>Identifying and naming parts of the human digestive system and explaining their functions.</u> |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | To explore and use classification keys to help group, identify and name a variety of vertebrates in their local and wider environment.<br><u>Generating questions to sort vertebrates in a classification key.</u>                  | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | To identify the different types of teeth in humans and their simple functions.<br><u>Learning about the different types of teeth.</u>                                                       |
|                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | To explore and use classification keys to help group, identify and name a variety of invertebrates in their local and wider environment.                                                                                            | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | To identify differences and similarities between human and animal teeth.                                                                                                                    |

|            |   |                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                        |                                                                                       |
|------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|            |   | Generating questions to sort invertebrates in a classification key.                                                                                                                                                                                                  |   | Comparing human and animal teeth.                                                                                                                                                      |                                                                                       |
|            | 6 | To recognise that environments can change and that this can sometimes pose dangers to living things, making some animals endangered.<br>Learning about environmental dangers and endangered species and thinking about how we can help to save them from extinction. | 5 | To understand what causes tooth decay.<br>Choosing a scientific enquiry to test and understand tooth decay, and presenting findings appropriately.                                     |                                                                                       |
|            |   |                                                                                                                                                                                                                                                                      | 6 | To construct and interpret a variety of food chains, identifying producers, predators and prey.<br>Understanding food chains and the role of different plants and animals within them. |                                                                                       |
| Resources  |   |                                                                                                                                                                                                                                                                      |   | Animal skulls with teeth<br>Human teeth model<br>Coke<br>White eggs (to simulate teeth)                                                                                                | Tiles<br>Toothbrushes<br>Toothpaste<br><a href="#">STEM: An Eggsperiment on Teeth</a> |
| Assessment |   | Children to be given different animals and their characteristics and asked to group these using diagrams and classification keys.                                                                                                                                    |   | Children to be asked to complete a crossword puzzle which has definition of words and terms from the topic as clues.                                                                   |                                                                                       |

| Year 5                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                             |  |                                                                                                                                                                   |                                                                                                                                                                                                                                         |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Term                   | Autumn 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                             |  | Autumn 2                                                                                                                                                          |                                                                                                                                                                                                                                         |
| Book                   | <u>Y5 – The Boy at the Back of the Class</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                             |  | <u>Y5 – The Rocket/All Sumer in a Day</u>                                                                                                                         |                                                                                                                                                                                                                                         |
| Science Topic          | Significant Scientists                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                             |  | Earth and Space                                                                                                                                                   |                                                                                                                                                                                                                                         |
| Learning Link Back     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                             |  | - Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.                                                               |                                                                                                                                                                                                                                         |
| Working Scientifically | 1. I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.<br>2. I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.<br>3. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.<br>4. I can use test results to make predictions to set up further comparative and fair tests.<br>5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.<br>6. I can identify scientific evidence that has been used to support or refute ideas or arguments. |                                                                                                                                                                             |  | 3. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. |                                                                                                                                                                                                                                         |
| Videos                 | <a href="#">Physics of Life – Falling Bodies (for teacher to watch as it explains the Science)</a><br><a href="#">Good Thinking – Falling 101</a> (might be a bit complicated for the kids)<br><a href="#">Gravity Compilation – Crash Course for Kids</a><br><a href="#">Hammer and Feather dropped on the moon</a><br>Hidden Figures (Movie – 2016 – PG Rating – 2hrs 7 mins)<br><a href="#">Hidden Figures (Story Book read aloud)</a>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                             |  | <a href="#">The International Space Station</a>                                                                                                                   |                                                                                                                                                                                                                                         |
| Educational Visit      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Visit to the Science Museum to explore their galleries                                                                                                                      |  | 1                                                                                                                                                                 | <a href="#">Soanes Centre: Earth, Sun and Moon</a> or <a href="#">Mission to Mars: Lego Workshop</a>                                                                                                                                    |
| Practical Activity     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Dropping different objects from the same height to see if they take the same time to fall to Earth.                                                                         |  |                                                                                                                                                                   |                                                                                                                                                                                                                                         |
| Learning Intentions    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Galileo Galilei – Italian astronomer, physicist and engineer.<br><u>Understanding of gravity by dropping balls of different masses from the leaning tower of Pisa.</u>      |  | 2                                                                                                                                                                 | To describe the movement of the Earth, and other planets, relative to the Sun in the solar system.<br><u>Learning the order of the planets and how they move in the solar system.</u>                                                   |
|                        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | George Washington Carver – American agricultural scientist.<br><u>Soil depletion and crop rotation.</u>                                                                     |  | 3                                                                                                                                                                 | To describe the movement of the Earth, and other planets, relative to the Sun in the solar system.<br><u>Examining the geocentric and heliocentric theories.</u>                                                                        |
|                        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Garrett Morgan – African American inventor.<br><u>Traffic lights and signals.</u>                                                                                           |  | 4                                                                                                                                                                 | To describe the Sun, Earth and Moon as approximately spherical bodies.<br><u>Identifying scientific evidence that has been used to support or refute ideas or arguments in the context of how ideas changed from a flat earth view.</u> |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The four ‘Hidden Figures’ women.<br><u>Calculations that allowed space missions to work and were instrumental in the success of the first American mission to the moon.</u> |  | 5                                                                                                                                                                 | To use the idea of the Earth’s rotation to explain day and night.                                                                                                                                                                       |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                             |  |                                                                                                                                                                   |                                                                                                                                                                                                                                         |

|            |                                                                                                                                                    |                                                                                                                             |                                                      |                                                                                                          |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
|            | 5                                                                                                                                                  | Katherine Johnson – American mathematician<br>Saved the Apollo 13 astronauts when there was an explosion on the spacecraft. |                                                      | Examining why the sun appears to move and the arguments for the Earth's rotation.                        |
|            | 6                                                                                                                                                  | Mae Jemison – American astronaut, engineer and physician.<br>Vaccine research and space mission as an astronaut.            | 6                                                    | To describe the movement of the Moon relative to the Earth.<br>Explaining how the Moon orbits the Earth. |
| Resources  | Sellophane<br>3 bulbs and holders<br>Empty tissue box<br>Crocodile clips and leads                                                                 |                                                                                                                             | Long feathers<br>Selection of balls<br>Soil<br>Seeds |                                                                                                          |
| Assessment | Children to choose their favourite of the scientists studied and complete a pre-designed template of a simple biography of their chosen scientist. |                                                                                                                             | Multiple choice quiz.                                |                                                                                                          |

| Year 5                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                 |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Term                   | <u>Spring 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | <u>Spring 2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                 |
| Book                   | <u>Y5 – The Call of the Wild</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | <u>Y5 – The Wizards of Once?</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |
| Science Topic          | Living Things and Habitats: Sexual and Asexual Reproduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Forces in Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |
| Learning Link Back     | <ul style="list-style-type: none"> <li>- Recognise that living things can be grouped in a variety of ways</li> <li>- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</li> <li>- Recognise that environments can change and that this can sometimes pose dangers to living things.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | <ul style="list-style-type: none"> <li>- Recognise magnetic forces, friction and air and water resistance.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                 |
| Working Scientifically | 1. I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.<br>2. I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.<br>3. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.<br>4. I can use test results to make predictions to set up further comparative and fair tests.<br>5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.<br>6. I can identify scientific evidence that has been used to support or refute ideas or arguments. |  | 1. I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.<br>2. I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.<br>3. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.<br>5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations. |                                                 |
| Videos                 | <a href="#">Sexual and Asexual Reproduction</a><br><a href="#">The Life Cycles of Various Living Organisms</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                 |
| Educational Visit      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">Soanes Centre: Fantastic Forces</a> |

|                     |                                                                                               |                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |                                                                                                                                                                                                          |  |
|---------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Practical Activity  | 1                                                                                             | To understand that plants produce new plants in different ways.<br><b>Investigating plants that reproduce asexually (such as strawberries) as well as plants where pollination would take place (Tim).</b>                                                                                                                                            | 2                                                                                   | <a href="#">STEM Activity: Racing Rockets p 148 - 153</a> or <a href="#">STEM Activity: Band Rollers p 20 - 23</a>                                                                                       |  |
| Learning Intentions | 2                                                                                             | To be able to explain the difference between sexual and asexual reproduction in plants.<br><b>Comparing sexual and asexual reproduction in plants by describing how this occurs in specific examples of plants available on the school premises.</b>                                                                                                  | 3                                                                                   | To explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.<br><b>Measuring the force of gravity pulling on objects.</b> |  |
|                     | 3                                                                                             | To identify advantages and disadvantages to sexual and asexual reproduction in plants and investigate asexual reproduction using a cutting from a living plant.<br><b>Comparing the process of reproduction in two different plants (one that uses sexual and the other that uses asexual) and listing the observed advantages and disadvantages.</b> | 4                                                                                   | To identify the effects of air and water resistance.<br><b>Creating and racing streamlined boats.</b>                                                                                                    |  |
|                     |                                                                                               |                                                                                                                                                                                                                                                                                                                                                       | 5                                                                                   | To identify the effects of friction.<br><b>Investigating brakes.</b>                                                                                                                                     |  |
|                     |                                                                                               |                                                                                                                                                                                                                                                                                                                                                       | 6                                                                                   | To recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.<br><b>Exploring and designing a simple mechanism.</b>                            |  |
|                     | 4                                                                                             | To be able to compare and describe the life cycles of different mammals.<br><b>Exploring the life cycles of mammals in different habitats and describing sexual reproduction in mammals.</b>                                                                                                                                                          |                                                                                     |                                                                                                                                                                                                          |  |
|                     | 5                                                                                             | To be able to compare and describe the life cycles of amphibians and insects.<br><b>Exploring complete and incomplete metamorphosis.</b>                                                                                                                                                                                                              |                                                                                     |                                                                                                                                                                                                          |  |
|                     | 6                                                                                             | To compare the life cycles of plants, mammals, amphibians, insects and birds.<br><b>Describing and comparing different life cycles, including birds.</b>                                                                                                                                                                                              |                                                                                     |                                                                                                                                                                                                          |  |
| Resources           | Caterpillar to Butterfly Kit<br>Chinese Money Plants or other plants that reproduce asexually |                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |                                                                                                                                                                                                          |  |
| Assessment          | Children to do a multiple choice quiz.                                                        |                                                                                                                                                                                                                                                                                                                                                       | Children to do a crossword puzzle with definitions of topic related terms as clues. |                                                                                                                                                                                                          |  |

| Year 5                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                       |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Term                   | <u>Summer 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                 | <u>Summer 2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                       |
| Book                   | <u>Y5 – The Jungle Book</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                 | <u>Y5 – Nevermoor – The Trials of Morrigan Crow</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                       |
| Science Topic          | Animals Including Humans – The Human Life-Cycle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                 | Properties and Changes of Materials: Reversible and Irreversible Changes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                       |
| Science Week           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                 | Visit to London Zoo – looking specifically at animal <a href="#">life cycles</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                       |
| Learning Link Back     | <ul style="list-style-type: none"> <li>- Describe the simple functions of the basic parts of the digestive system in humans.</li> <li>- Identify the different types of teeth in humans and their simple functions.</li> <li>- Construct and interpret a variety of food chains, identifying producers, predators and prey.</li> </ul>                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>- Compare and group materials together, according to whether they are solids, liquids or gases.</li> <li>- Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celcius.</li> <li>- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</li> <li>- Recognise some common conductors and insulators, and associate metals with being good conductors.</li> </ul> |                                                                                                                                                                                                                                                                       |
| Working Scientifically | 2. I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.<br>3. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.<br>5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.<br>6. I can identify scientific evidence that has been used to support or refute ideas or arguments. |                                                                                                                                                                                                                                 | 1. I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.<br>5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                       |
| Wow Activity           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                       |
| Educational Visit      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                       |
| Practical Activity     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <a href="#">STEM: Irreversible Changes</a><br>To explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. |
| Learning Intentions    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | To describe the stages of human development.<br><b>Drawing a timeline to indicate stages in the growth and development of humans.</b>                                                                                           | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | To compare and group together everyday materials on the basis of their properties, including their hardness, transparency and response to magnets.<br><b>Sorting and classifying materials according to their properties.</b>                                         |
|                        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | To explain the development of babies in their first year.<br><b>Recording data and results of increasing complexity using bar and line graphs in the context of the height and/or weight during the first year after birth.</b> | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | To compare and group together everyday materials on the basis of their thermal conductivity.<br><b>Investigating thermal conductors and insulators.</b>                                                                                                               |
|                        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | To compare the gestation periods for animals, including humans.<br><b>Reporting findings from enquiries, including oral and written explanations of results on life expectancy of animals with different gestation periods.</b> | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | To compare and group together everyday materials on the basis of their electrical conductivity.                                                                                                                                                                       |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | To describe and explain the main changes that occur during puberty.                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                       |

|            |                                                                                            |                                                                                                                              |                       |                                                                                                                             |                                             |
|------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|            |                                                                                            | Comparing the changes that take place to boys and girls during puberty.                                                      |                       | Investigating the best electrical conductors.                                                                               |                                             |
|            | 5                                                                                          | To examine humans as they develop to old age.<br>Understanding the changes that take place in old age.                       | 5                     | To demonstrate that dissolving, mixing and changes of state are reversible changes.<br>Investigating dissolving and mixing. |                                             |
|            | 6                                                                                          | To explore the relationship between gestation periods and the life expectancies of animals.<br>Comparing and analysing data. | 6                     | To describe how to recover a substance from a solution.<br>By separating different mixtures.                                |                                             |
| Resources  |                                                                                            |                                                                                                                              |                       | Batteries<br>Chalk<br>Beakers<br>Filters                                                                                    | Bulbs<br>Sand<br>Weighing scales<br>Funnels |
| Assessment | Children to fill in a pre-designed information leaflet on the stages of human development. |                                                                                                                              | Multiple choice quiz. |                                                                                                                             |                                             |

| Year 6             |                                                      |                                                                                                                                                                                                                                                          |
|--------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Term               | <u>Autumn 1</u>                                      | <u>Autumn 2</u>                                                                                                                                                                                                                                          |
| Book               | <u>Y6 – Wonder</u>                                   | <u>Y6 – Skellig</u>                                                                                                                                                                                                                                      |
| Science Topic      | Animals Including Humans: Circulation and Nutrients  | Light: Reflection and Colours in White Light                                                                                                                                                                                                             |
| Learning Link Back | - Describe the changes as humans develop to old age. | - Recognise that they need light in order to see things and that dark is the absence of light.<br>- Notice that light is reflected from surfaces.<br>- Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. |

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                  |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>- Recognise that shadows are formed when the light from a light source is blocked by an opaque object.</li> <li>- Find patterns in the way that they size of shadows change.</li> </ul>                                                                                                                   |
| Working Scientifically | 1. I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.<br>2. I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.<br>3. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.<br>5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.<br>6. I can identify scientific evidence that has been used to support or refute ideas or arguments. |                                                                                                                                                                                                                                                                              | 1. I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.<br>5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations. |
| Videos                 | <a href="#">Circulatory System and Pathway of Blood Through the Heart</a><br><a href="#">Oxygen's Surprisingly complex journey through your body</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                  |
| Educational Visit      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">Soanes Centre: Food Chains and Food Webs</a>                                                                                                                                                                                                                     | 1 <a href="#">Explorer Dome: Light Show</a>                                                                                                                                                                                                                                                                                                      |
| Practical Activity     | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | To have an understanding of how the heart works.<br><b>Dissecting an animal heart and looking at its workings OR looking at a model of a heart and looking at the various aspects of it.</b>                                                                                 |                                                                                                                                                                                                                                                                                                                                                  |
| Learning Intentions    | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | To identify and name the main parts of the human circulatory system.<br><b>Recalling prior knowledge of systems in the human body and labelling a diagram.</b>                                                                                                               | 2 To recognise that light appears to travel in straight lines.<br><b>Creating a model of light travelling.</b>                                                                                                                                                                                                                                   |
|                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | To describe the functions of the heart, blood vessels and blood (including the transportation of water and nutrients).<br><b>Investigating how the different parts of the circulatory system work.</b>                                                                       | 3 To use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.<br><b>Investigating the angles of incidence and reflection by creating a periscope and explaining how it works.</b>                                                                                 |
|                        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | To describe the impact of diet and exercise on the way their bodies.<br><b>Creating an enquiry that compares and categorises different forms of exercise, taking accurate pulse measurements to gather data, and reporting and presenting the findings of their enquiry.</b> | 4 To recognise that light appears to travel in straight lines.<br><b>Investigating refraction.</b>                                                                                                                                                                                                                                               |
|                        | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | To explain the impact of drugs (including cigarettes and alcohol) on the way their bodies function.<br><b>Identify scientific evidence that has been used to support or refute ideas or arguments in the context of changing attitudes to smoking.</b>                       | 5 To recognise that light appears to travel in straight lines.<br><b>Exploring prisms and creating colour wheels. Seeing colours</b>                                                                                                                                                                                                             |
| Resources              | Human Torso – including heart and lungs<br>Bulb syringes<br>White plastic cups                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Oblong balloons<br>Large container                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                  |
| Assessment             | Children to design a poster explaining how people should look after their bodies, using a pre-designed template.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                              | Multiple choice quiz.                                                                                                                                                                                                                                                                                                                            |

Year 6

| Term                   | <u>Spring 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <u>Spring 2</u>                                                                                                                                                   |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <b>Y6 – The Lost Magician</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Y6 – The Arrival</b>                                                                                                                                           |
| Science Topic          | Electricity: Changing Circuits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Evolution and Inheritance                                                                                                                                         |
| Learning Link Back     | <ul style="list-style-type: none"> <li>- Identify common appliances that run on electricity.</li> <li>- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</li> <li>- Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.</li> <li>- Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</li> <li>- Recognise some common conductors and insulators, and associate metals with being good conductors.</li> </ul> |                                                                                                                                                                   |
| Working Scientifically | 1. I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. |

|                     |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | 5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.       |                                                                                                                                                                                                                                                                                                                                                                              | 5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.<br>6. I can identify scientific evidence that has been used to support or refute ideas or arguments. |                                                                                                                                                                                                                                    |
| Videos              | <a href="#">Length and thickness of wire in a circuit</a>                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |
| Educational Visit   | 1                                                                                                                                                                                                       | <a href="#">Science Museum: Wonderlab</a>                                                                                                                                                                                                                                                                                                                                    | 1                                                                                                                                                                                                                                                                                                      | <a href="#">Natural History Museum: Evolution Workshop</a><br><a href="#">Natural History Museum: Darwin's Finches</a>                                                                                                             |
| Practical Activity  |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |
| Learning Intentions | 2                                                                                                                                                                                                       | To identifying scientific evidence that has been used to support or refute ideas or arguments.<br><b>Looking at the major discoveries made by scientists in the field of electricity.</b>                                                                                                                                                                                    | 2                                                                                                                                                                                                                                                                                                      | To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents in the context of inheritance.<br><b>Explaining the scientific concept of inheritance.</b>  |
|                     | 3                                                                                                                                                                                                       | To use recognised symbols when representing a simple circuit in a diagram.<br><b>Observing and explaining the effect of different volts in a circuit.</b>                                                                                                                                                                                                                    | 3                                                                                                                                                                                                                                                                                                      | To identify how animals and plants are adapted to suit their environment in different ways.<br><b>Exploring environmental variation.</b>                                                                                           |
|                     | 4                                                                                                                                                                                                       | To associate the brightness of a bulb or the volume of a buzzer with the number and voltage of cells used in the circuit.<br><b>Observing and explaining the effect of different volts in a circuit.</b>                                                                                                                                                                     | 4                                                                                                                                                                                                                                                                                                      | Identifying scientific evidence that has been used to support or refute ideas or arguments on how adaptation may lead to evolution.<br><b>Examining the theories of evolution constructed by Darwin and Wallace.</b>               |
|                     | 5                                                                                                                                                                                                       | To compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.<br><b>Investigating the relationship between wire length and the brightness of bulbs or the loudness of buzzers.</b>                                                                                  | 5                                                                                                                                                                                                                                                                                                      | To recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.<br><b>Exploring the evolution of plants, animals &amp; humans.</b> |
|                     | 6                                                                                                                                                                                                       | To report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.<br><b>Conducting an investigation, presenting and report findings on the effect of wire length on the brightness of bulbs or the loudness of buzzers.</b> | 6                                                                                                                                                                                                                                                                                                      | To identify how adaptation may lead to evolution.<br><b>Examining the advantages and disadvantages of specific adaptations and the role of human intervention in the process of evolution.</b>                                     |
|                     |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |
| Resources           |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                              | Fossils<br>Clay                                                                                                                                                                                                                                                                                        | String<br>Plastic cups                                                                                                                                                                                                             |
| Assessment          | Children to create an instruction leaflet on how to make a buzzer or bulb work including instructions on how to make the buzzer or bulb louder or brighter as well as explanations on why this happens. |                                                                                                                                                                                                                                                                                                                                                                              | Multiple choice quiz.                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |

Year 6

| Term                   | <u>Summer 1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <u>Summer 2</u>                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Book                   | <u>Y6 – Tom’s Midnight Garden</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <u>Y6 – Macbeth - Shakespeare</u>                                                                                                                                                                                                 |
| Science Topic          | Local Study of Canals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Living Things and Habitats – Characteristics including Micro-organisms                                                                                                                                                            |
| Science Week           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Visit to RSPB Rainham Marshes – To look specifically at different habitats                                                                                                                                                        |
| Learning Link Back     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</li> <li>- Describe the life process of reproduction in some plants and animals.</li> </ul> |
| Working Scientifically | <ol style="list-style-type: none"> <li>1. I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>2. I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</li> <li>3. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> <li>4. I can use test results to make predictions to set up further comparative and fair tests.</li> <li>5. I can report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.</li> </ol> |                                                                                                                                                                                                                                   |

|                     |                                                                                                                     |                                                                                                                                                                                                                                          |                                                                                                                                          |                                                                                                                                                                                                                                                                            |
|---------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | 6. I can identify scientific evidence that has been used to support or refute ideas or arguments.                   |                                                                                                                                                                                                                                          |                                                                                                                                          |                                                                                                                                                                                                                                                                            |
| Wow Activity        |                                                                                                                     |                                                                                                                                                                                                                                          |                                                                                                                                          |                                                                                                                                                                                                                                                                            |
| Educational Visit   | 4                                                                                                                   | Visit to a location on a canal in the local area.<br><a href="#">Planning a Visit to the Local Canal</a><br><a href="#">Waterway Habitats</a>                                                                                            | 1                                                                                                                                        | <a href="#">Soanes Centre: Classifying Minibeasts</a>                                                                                                                                                                                                                      |
| Practical Activity  | 6                                                                                                                   | <a href="#">STEM Activity: Bridge Blunder p 28 - 31</a><br><a href="#">Building Bridges</a><br><a href="#">Building Bridges Practical Activity</a>                                                                                       | 2                                                                                                                                        | To classify organisms found in the local habitat.<br><b>Creating a field guide to the organisms found in the local habitat.</b><br><a href="#">STEM Activity: Brilliant Birds p32-35</a>                                                                                   |
| Learning Intentions | 1                                                                                                                   | To find out about the history of canals in London and how they were used in the past.<br><a href="#">Waterway Heritage</a><br><a href="#">All About Canals</a><br><a href="#">Exploring Family History</a>                               | 3                                                                                                                                        | To give reasons for classifying plants and animals based on specific characteristics.<br><b>Sorting and grouping animals for a zoo.</b>                                                                                                                                    |
|                     | 2                                                                                                                   | To understand how canals are used today, comparing this to how they were used in the past.<br><a href="#">Waterways Today</a><br><a href="#">All About Canals</a>                                                                        | 4                                                                                                                                        | To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.<br><b>Finding out about the Linnaean System of classification.</b> |
|                     | 3                                                                                                                   | To find out about the animals that live within the environment of a canal and to think about their habitat and how they are suited to it.<br><a href="#">All About Animals - Teacher's Guidance</a><br><a href="#">All About Animals</a> | 5                                                                                                                                        | To identify the characteristics of different types of animals.<br><b>Exploring unusual creatures and designing their own 'curious creature'.</b>                                                                                                                           |
|                     | 5                                                                                                                   | To look at different bridges that can be found going over the local canal.<br><a href="#">Building Bridges Presentation</a>                                                                                                              | 6                                                                                                                                        | To identify and describe micro-organisms.<br><b>Exploring helpful and harmful microorganisms and looking at their characteristics.</b>                                                                                                                                     |
|                     |                                                                                                                     |                                                                                                                                                                                                                                          |                                                                                                                                          |                                                                                                                                                                                                                                                                            |
| Resources           | <a href="https://canalrivertrust.org.uk/explorers/resources">https://canalrivertrust.org.uk/explorers/resources</a> |                                                                                                                                                                                                                                          |                                                                                                                                          |                                                                                                                                                                                                                                                                            |
| Assessment          | Travel Information Leaflet                                                                                          |                                                                                                                                                                                                                                          | Children to be given different organisms and their characteristics and asked to group these using the Linnaean System of classification. |                                                                                                                                                                                                                                                                            |