

## Altrincham C of E Aided Primary School

### Year 4 White Rose Science Subject Overview

| <b>Autumn term</b><br><b>Year 4</b>           | <u>Group and classify living things</u><br>(4 weeks)                                                                                                                                                                                                                                                     | <u>Data collection A</u><br>(1 week)                                                                                                                                                           | <u>States of matter</u><br>(7 weeks)                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <u>Lessons</u>                                | <b>Lesson 1</b> - Group animals (step 1)<br><b>Lesson 2</b> - Vertebrates and invertebrates (step 2)<br><b>Lesson 3</b> - Classification keys- animals (step 3)<br><b>Lesson 4</b> - Group plants and classification keys- plants (steps 4&5)                                                            | <b>Lesson 1</b> - Data collection A and analyse data (steps 1&2)                                                                                                                               | <b>Lesson 1</b> - Explore solids liquids and gases and think differently- solids liquids and gases (steps 1&2)<br><b>Lesson 2</b> - Changes states (step 3)<br><b>Lesson 3</b> - Use equipment (step 4)<br><b>Lesson 4</b> - Plan and investigate- melting experiment (steps 5&6)<br><b>Lesson 5</b> - The water cycle (step 7)<br><b>Lesson 6</b> - Plan and investigate- evaporation experiment (steps 8&9)<br><b>Lesson 7</b> - Evaluate- evaporation experiment (step 10) |
| <u>End points</u>                             | -Know that animals with spines are called vertebrates.<br>-Group animals whether they are a vertebrate or invertebrate.<br>-Create a classification key for animals.<br>-Explain how flowering plants can produce flowers and fruits.<br>-Know that closed questions can be used in classification keys. | -Explain how some animals eat more in autumn to increase their body fat for the winter.<br>-Describe how presenting data in bar charts or pictograms, help to spot patterns and trends easily. | -Understand that solids have a fixed shape and gases and liquids do not have a fixed shape.<br>-Understand that some solids can be poured but they are still classified as solid materials<br>-Explain when heat is applied to ice, the ice melts and turns to water, and when water is heated it turns to gas.<br>-Know a thermometer is used to measure temperature.<br>-Explain that water is in a constant movement through a process called the water cycle.             |
| <u>Vocabulary</u>                             | Mammal, bird, fish, amphibian, reptile, vertebrate, invertebrate, exoskeleton, insect, spider, soft-bodied invertebrate, flowering plant, non- flowering plant, stamen, pistil, pollination, fern, moss.                                                                                                 | Vertebrate, invertebrate, flowering plant, non-flowering plant, bar chart, pictogram, data, prediction.                                                                                        | Solid, liquid, gas, volume, states of matter, pouring sand, oobleck, flow, freezing, melting, boiling, condensation, evaporator, thermometer, stopwatch, beaker, temperature, melting point, the water cycle, precipitation, atmosphere, petri dish, observe, data, conclusion.                                                                                                                                                                                               |
| <u>Relevant prior learning</u>                | Animal skeletons, parts and growth of plants.                                                                                                                                                                                                                                                            | Animals needing the right type of nutrient and cannot make their own foods,                                                                                                                    | Everyday materials and properties, suitability of materials, Weather association within seasons.                                                                                                                                                                                                                                                                                                                                                                              |
| <u>Key questions and practical activities</u> | <a href="#">Y4 Autumn Block 1 Group and classify living things SOL.pdf</a>                                                                                                                                                                                                                               | <a href="#">Y4 Autumn Block 2 Data collection A SOL.pdf</a>                                                                                                                                    | <a href="#">Y4 Autumn Block 3 States of matter SOL.pdf</a>                                                                                                                                                                                                                                                                                                                                                                                                                    |