



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



## Science Curriculum Coverage Year A

| Year 1 & 2 coverage   | Autumn 1            | Autumn 2                                       | Spring 1  | Spring 2  | Summer 1 | Summer 2                          |
|---|---------------------|--|---|---|----------|-----------------------------------|
|   | Every Day Materials | Every Day Materials<br>Seasonal Changes Autumn | Uses of everyday Materials<br>Seasonal Changes Winter | Uses of everyday Materials<br>Seasonal Changes Spring | Plants   | Plants<br>Seasonal Changes Summer |
| <b>Year 1</b>   |                     |  |   |   |          |                                   |
| <b>National Curriculum Objectives/Unit</b>  |                     |  |   |   |          |                                   |
| <b>Scientific Enquiry</b>   |                     |  |   |   |          |                                   |
| Asking simple questions and recognising that they can be answered in different ways |                     |  |   |   |          |                                   |
| Observing closely, using simple equipment   |                     |  |   |   |          |                                   |
| Performing simple tests   |                     |  |   |   |          |                                   |
| Identifying and classifying   |                     |  |   |   |          |                                   |
| Using observations and ideas to suggest answers to questions                        |                     |  |   |   |          |                                   |
| Gathering and recording data to help in answering questions                         |                     |  |   |   |          |                                   |
| <b>Plants</b>   |                     |  |   |   |          |                                   |



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



|   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees       |  |  |  |  |  |  |
| Identify and describe the basic structure of a variety of common flowering plants including trees           |  |  |  |  |  |  |
| <b>Everyday materials</b>   |  |  |  |  |  |  |
| Distinguish between an object and the material from which it is made  |  |  |  |  |  |  |
| Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock    |  |  |  |  |  |  |
| Describe the simple physical properties of a variety of everyday materials                                  |  |  |  |  |  |  |
| Compare and group together a variety of everyday materials on the basis of their simple physical properties |  |  |  |  |  |  |
| <b>Seasonal Changes</b>   |  |  |  |  |  |  |
| Observe changes across the 4 seasons  |  |  |  |  |  |  |
| Observe and describe weather associated with the seasons and how day length varies                          |  |  |  |  |  |  |



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



|   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| <b>Year 2</b>   |  |  |  |  |  |  |
| <b>National Curriculum Objectives/Unit</b>  |  |  |  |  |  |  |
| <b>Scientific Enquiry</b>   |  |  |  |  |  |  |
| Asking simple questions and recognising that they can be answered in different ways   |  |  |  |  |  |  |
| Observing closely, using simple equipment   |  |  |  |  |  |  |
| Performing simple tests   |  |  |  |  |  |  |
| Identifying and classifying   |  |  |  |  |  |  |
| Using observations and ideas to suggest answers to questions  |  |  |  |  |  |  |
| Gathering and recording data to help in answering questions   |  |  |  |  |  |  |
| <b>Plants</b>   |  |  |  |  |  |  |
| Observe and describe how seeds and bulbs grow into mature plants  |  |  |  |  |  |  |
| Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy  |  |  |  |  |  |  |
| <b>Everyday materials</b>   |  |  |  |  |  |  |
| Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular |  |  |  |  |  |  |



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|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| uses   |  |  |  |  |  |  |
| Find out how the shapes of solid objects made from materials can be changed by squashing, bending, twisting and stretching |  |  |  |  |  |  |

| <b>Year 3 &amp; 4 coverage</b>  | <b>Autumn 1</b>         | <b>Autumn 2</b> | <b>Spring 1</b>           | <b>Spring 2</b>           | <b>Summer 1</b>    | <b>Summer 2</b> |
|---|-------------------------|-----------------|---------------------------|---------------------------|--------------------|-----------------|
|   | <b>States of Matter</b> | <b>Rocks</b>    | <b>Forces and Magnets</b> | <b>Forces and Magnets</b> | <b>Electricity</b> | <b>Plants</b>   |
| <b>Year 3</b>   |                         |                 |                           |                           |                    |                 |
| <b>National Curriculum Objectives/Unit</b>  |                         |                 |                           |                           |                    |                 |
| <b>Scientific Enquiry</b>   |                         |                 |                           |                           |                    |                 |
| Asking relevant questions and using different types of scientific enquiries to answer them  |                         |                 |                           |                           |                    |                 |
| Setting up simple practical enquiries, comparative and fair tests   |                         |                 |                           |                           |                    |                 |
| Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers |                         |                 |                           |                           |                    |                 |
| Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions   |                         |                 |                           |                           |                    |                 |
| Recording findings using simple scientific language. Drawings, labelled diagrams, keys, bar charts, and tables  |                         |                 |                           |                           |                    |                 |



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



|   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions                     |  |  |  |  |  |  |
| Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions                             |  |  |  |  |  |  |
| Identifying differences, similarities or changes related to simple scientific ideas and processes   |  |  |  |  |  |  |
| Using straightforward scientific evidence to answer questions or to support their findings  |  |  |  |  |  |  |
| <b>Plants</b>   |  |  |  |  |  |  |
| Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers                                       |  |  |  |  |  |  |
| Explore the requirements of plants for life and growth (Air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant |  |  |  |  |  |  |
| Investigate the way in which water is transported within plants   |  |  |  |  |  |  |
| Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal                      |  |  |  |  |  |  |
| <b>Rocks</b>  |  |  |  |  |  |  |
| Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties                                     |  |  |  |  |  |  |



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



|   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Describe in simple terms how fossils are formed when things that have lived are trapped within rock   |  |  |  |  |  |  |
| Recognise that soils are made from rocks and organic matter   |  |  |  |  |  |  |
| <b>Forces and Magnets</b>   |  |  |  |  |  |  |
| Compare how things move on different surfaces   |  |  |  |  |  |  |
| Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance   |  |  |  |  |  |  |
| Observe how magnets attract or repel each other and attract some materials and not others   |  |  |  |  |  |  |
| Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials |  |  |  |  |  |  |
| Describe magnets as having 2 poles  |  |  |  |  |  |  |
| Predict whether 2 magnets will attract or repel each other, depending on which poles are facing   |  |  |  |  |  |  |



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



## Year 4

### National Curriculum Objectives/Unit

#### Scientific Enquiry

|   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Asking relevant questions and using different types of scientific enquiries to answer them  |  |  |  |  |  |  |
| Setting up simple practical enquiries, comparative and fair tests   |  |  |  |  |  |  |
| Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers |  |  |  |  |  |  |
| Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions   |  |  |  |  |  |  |
| Recording findings using simple scientific language. Drawings, labelled diagrams, keys, bar charts, and tables  |  |  |  |  |  |  |
| Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions   |  |  |  |  |  |  |
| Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions   |  |  |  |  |  |  |
| Identifying differences, similarities or changes related to simple scientific ideas and processes   |  |  |  |  |  |  |
| Using straightforward scientific evidence to answer questions or to support their findings  |  |  |  |  |  |  |

#### States of Matter



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| Compare and group materials together, according to whether they are solids, liquids or gases   |  |  |  |  |  |  |
| Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degree Celsius |  |  |  |  |  |  |
| Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature                       |  |  |  |  |  |  |
| <b>Electricity</b>   |  |  |  |  |  |  |
| Identify common appliances that run on electricity   |  |  |  |  |  |  |
| Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers                |  |  |  |  |  |  |
| 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         |  |  |  |  |  |  |
| Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit                       |  |  |  |  |  |  |
| Recognise some common conductors and insulators, and associate metals with being good conduction   |  |  |  |  |  |  |





# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



| Year 5 & 6 coverage  | Autumn 1                            | Autumn 2                            | Spring 1 | Spring 2 | Summer 1    | Summer 2                         |
|--|-------------------------------------|-------------------------------------|----------|----------|-------------|----------------------------------|
|  | Properties and Changes of Materials | Properties and Changes of Materials | Forces   | Forces   | Electricity | Living Things and their Habitats |
| <b>Year 5</b>  |                                     |                                     |          |          |             |                                  |
| <b>National Curriculum Objectives/Unit</b>   |                                     |                                     |          |          |             |                                  |
| <b>Scientific Enquiry</b>  |                                     |                                     |          |          |             |                                  |
| Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary  |                                     |                                     |          |          |             |                                  |
| Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate  |                                     |                                     |          |          |             |                                  |
| Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs   |                                     |                                     |          |          |             |                                  |
| Using test results to make predictions to set up further comparative and fair tests  |                                     |                                     |          |          |             |                                  |
| Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations |                                     |                                     |          |          |             |                                  |
| Identifying scientific evidence that has been used to  |                                     |                                     |          |          |             |                                  |



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



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| support or refute ideas or arguments  |  |  |  |  |  |  |
| <b>Living things and their habitats</b>   |  |  |  |  |  |  |
| Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird   |  |  |  |  |  |  |
| Describe the life process of reproduction in some plants and animals  |  |  |  |  |  |  |
| <b>Properties and changes of materials</b>  |  |  |  |  |  |  |
| Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets                  |  |  |  |  |  |  |
| Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution  |  |  |  |  |  |  |
| Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating  |  |  |  |  |  |  |
| Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic  |  |  |  |  |  |  |
| Demonstrate that dissolving, mixing and changes of state are reversible changes   |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |
| <b>Forces</b>   |  |  |  |  |  |  |
| Explain that unsupported objects fall towards the   |  |  |  |  |  |  |



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



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|--|--|--|--|--|--|--|
| Earth because of the force of gravity acting between the Earth and the falling object  |  |  |  |  |  |  |
| Identify the effects of air resistance, water resistance and friction, that act between moving surfaces  |  |  |  |  |  |  |
| Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect  |  |  |  |  |  |  |
| <b>Year 6</b>  |  |  |  |  |  |  |
| <b>National Curriculum Objectives/Unit</b>   |  |  |  |  |  |  |
| <b>Scientific Enquiry</b>  |  |  |  |  |  |  |
| Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary  |  |  |  |  |  |  |
| Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate  |  |  |  |  |  |  |
| Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs   |  |  |  |  |  |  |
| Using test results to make predictions to set up further comparative and fair tests  |  |  |  |  |  |  |
| Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations |  |  |  |  |  |  |
| Identifying scientific evidence that has been used to support or refute ideas or arguments   |  |  |  |  |  |  |



# THRESHFIELD PRIMARY SCHOOL CURRICULUM COVERAGE



## Electricity

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit  |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |
| Use recognised symbols when representing a simple circuit in a diagram   |  |  |  |  |  |  |