

The Craylands School EYFS Science Progression

Understanding the World

Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.

| | | | |
|------|--|--|--|
| | Explore the natural world around them, making observations and drawing pictures of animals and plants; | - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; | - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. |
| EYFS | <p>Visits to the meadow and drawing what they can see; taking photos of what they see</p> <p>Growing herbs/plants</p> <p>Class pet</p> | Use of books such as 'We're going a bear hunt' to identify the different environments | <p>Taking photos at each season to look at the changes</p> <p>Baking/cooking</p> <p>Ice melting</p> <p>Sensory play</p> |

The Craylands School KS1 Science Progression

| | | | | | | |
|--|---|---|--|---|---|--|
| <p>Aims</p> <p>develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics</p> <ul style="list-style-type: none"> develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future. | | | | | | |
| | 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 their observations and ideas to suggest answers to questions | gathering and recording data to help in answering questions. |
| Year 1 | <p>What happens in different seasons</p> <p>Which material best for jacket/crash mat</p> <p>Are plants same as each other</p> | <p>Describing materials objects made of</p> <p>Observe parts of a plant</p> | <p>What happens when materials heated/cooled</p> | <p>Sorting materials</p> <p>Sorting animals</p> | <p>Observing weather in seasons</p> <p>Similarities/difference between plants</p> | <p>Measuring rainfall</p> <p>Drawing observations</p> |

| | | | | | | |
|--------|--|--|--|------------------------------------|------------------------|---|
| | | What do things look like | | | | |
| Year 2 | <p>How are babies different to adults</p> <p>What does a seed need to grow</p> | <p>Observe materials objects made out of</p> <p>What does seed look like</p> | <p>Which material would we block a hole in a bucket with</p> <p>Which material can we see light through</p> <p>Which surface will it travel furthest on</p> <p>How can we change shape of material</p> | Sorting animals by where they live | How best to grow seeds | <p>Record impact of exercise</p> <p>Observe how plants grow</p> |

The Craylands School KS2 Science Progression

| | | | | | |
|--|--|---|--|--|--|
| <p>Aims</p> <p>develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics</p> <ul style="list-style-type: none"> develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future. | | | | | |
| | <p>asking relevant questions and using different types of scientific enquiries to answer them</p> | <p>setting up simple practical enquiries, comparative and fair tests</p> | <p>making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> | <p>gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</p> | <p>recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> |
| Year 3 | <p>Which magnet is stronger/which material will magnet work through</p> <p>Which rock lets water through</p> | <p>How can we move tub along surface</p> <p>Which rock lets water through</p> <p>Do people with longer legs jump furthest</p> | <p>Do people with longer legs jump furthest</p> | <p>Changing size of shadows</p> <p>Do people with longer legs jump furthest</p> | <p>How magnets work</p> <p>Do people with longer legs jump furthest</p> <p>What happens to a plant if we take away sunlight from it?</p> |

| | | | | | |
|--------|--|--|--|--|--|
| | | | | | |
| Year 4 | <p>What will happen when we heat this solid?</p> <p>What sounds can you hear?</p> <p>How can we change how loud a sound is?</p> | <p>Which of these materials let electricity run through them? How do you know?</p> | <p>What will happen when we heat this solid?</p> <p>Where in the school would be best to place a fire alarm?</p> | <p>Which of these materials let electricity run through them? How do you know?</p> | <p>What does a switch do in a circuit?</p> |
| | <p>reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> | <p>using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> | <p>□ identifying differences, similarities or changes related to simple scientific ideas and processes</p> | <p>□ using straightforward scientific evidence to answer questions or to support their findings</p> | |
| Year 3 | <p>Which magnet is stronger/which material will magnet work through</p> <p>What happens to a plant if we take away sunlight from it?</p> | <p>How much water will soil absorb</p> <p>Do people with longer legs jump furthest</p> | <p>When can we see shadows?</p> | <p>What type of soil would a farmer want to use</p> <p>What happens to a plant if we take away sunlight from it?</p> | |

| | | | | | | |
|--------|---|---|--|--|--|--|
| Year 4 | | How can we change how loud a sound is? | | What will happen when we heat this solid? Which of these materials let electricity run through them? How do you know? | | What happens in the processes of evaporation and condensation? |
| | 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 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 |
| Year 5 | What affects how well sugar dissolves? When would we need to use | Which of these cups let through the most heat? | Which of these cups let through the most heat? How does the surface of an object affect how it falls? | How does the shape of an object affect how it moves in water? | What affect will a coat have a person and an ice man? How does the weight of a baby change? | What affects how well a parachute falls? |

| | | | | | | |
|--------|---|--|---|---|--|---|
| | evaporation to separate? | | | | | |
| Year 6 | <p>How do we see things in a mirror?</p> <p>How will the number of batteries affect the brightness of a bulb?</p> | <p>How will the number of batteries affect the brightness of a bulb?</p> | <p>What do you notice about a shadow and the object that casts it?</p> <p>How can we classify living things?</p> <p>What happens to the heart when we exercise?</p> | <p>What do you notice about a shadow and the object that casts it?</p> <p>How will the number of batteries affect the brightness of a bulb?</p> | <p>What happens to the heart when we exercise?</p> <p>How do we look after our well-being?</p> | <p>How do we know about living things that have lived in the past?</p> <p>How does light travel?</p> <p>What evidence is there that light travels in a straight line?</p> |