Engayne Primary **Science programme of study** **Year Five**

Living things and their habitats

The children will be taught:

- to identify and sequence the main stages in the life cycles of birds, amphibians and mammals
- to identify and sequence the main stages in the life cycle of a vegetable or flower within the school environment
- about the parts of a flower used in reproduction
- what pollination is and how it might happen
- what fertilization is and how it might happen
- how the developed seed is dispersed and know why this is important
- know what germination is

Earth and Space

The children will be taught:

- to name and sequence parts of our solar system
- what the word orbit means and how planets do this at different speeds
- how long it takes for the Earth to orbit the Sun
- what people used to believe about the solar system
- why the Moon orbits the Earth, how long it takes and its appearance as it moves
- about the relative size and shape of the Sun, Earth and Moon
- how the rotation of the Earth creates night and day
- how the appearance of the Sun will change during one rotation of the Earth.

Properties and changes in materials

The children will be taught:

- to describe and compare solid materials using terms: hardness, strength, stiffness, flexibility, elasticity, plasticity, absorbency and permeability
- to identify materials that are good conductors and insulators for electricity or heat
- how to test which metals are most magnetic
- to identify uses for materials based on properties
- what the terms dissolve, substance, solution, solubility, suspension and transparency mean
- to separate mixed materials using sieving, filtering and evaporation
- what reversible and irreversible changes are, give examples, and that an irreversible change means something new has been made.

Animals including humans

The children will be taught:

- how to make notes and timelines to show the stages in the growth of humans
- about the changes that happen to humans during puberty
- about the gestation period of humans and other animals.

Forces

The children will be taught:

- about Isaac Newton and what gravity is
- about the difference between the mass and the weight of an object
- how the force of friction acts between objects and surfaces
- how to investigate air and water resistance and how forces can be changed
- about how levers, pulleys and gears help move objects.

Working scientifically. The children will have the opportunity to:

- plan different types of scientific enquiries to answer questions
- take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- use test results to make predictions to set up further comparative and fair tests
- report and present findings from enquiries, including conclusions, causal relationships and explanations in oral and written forms such as displays and other presentations
- identify scientific evidence that has been used to support or refute ideas or arguments.