

# New Science Curriculum - Year 5

## Living things and their habitats

- Children should be able to describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Children should be able to describe the life process of reproduction in some plants and animals.

## Animals, including humans

- Children should be able to describe the changes as humans develop to old age.

## Properties and changes of materials

- Children will 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.
- Children should be able to explain that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.
- Children will use their knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
- Children should be able to give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
- Children should be able to demonstrate that dissolving, mixing and changes of state are reversible changes.
- Children should be able 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.

## Earth and Space

- Children should be able to describe the movement of the Earth, and other planets, relative to the Sun in the solar system.
- Children should be able to describe the movement of the Moon relative to the Earth.
- Children should be able to describe the Sun, Earth and Moon as approximately spherical bodies.
- Children should be able to use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

## Forces

- Children should be able to explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- Children should be able to identify the effects of air resistance, water resistance and friction; that act between moving surfaces.
- Children should be able to recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.