

SCIENCE – YEAR 5

AUTUMN

SPRING

SUMMER

Working Scientifically

- 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

Earth and Space

- describe the movement of the Earth relative to the Sun in the solar system
- describe the movement of the Moon relative to the Earth
- describe the Sun, Earth and Moon as approximately spherical bodies
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun.
- understand that day length varies during the year

Properties and Changes of Materials

- compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, transparency, conductivity (electrical and thermal), and response to magnets
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through sieving and filtering.
- give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials including metals, wood and plastic
- demonstrate that most mixing is a reversible change of state.
- 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.

Forces

- explain that unsupported objects fall towards the 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
 - understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs

All Living Things

- explain 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.

Animals (including humans)

- Can they create a timeline to indicate stages of growth in humans?
- Can they explain what puberty is?