

Y5 Scientific Areas of Learning

Earth and Space	Forces	Properties and Changes of Materials
<ul style="list-style-type: none"> Describe the movement of the Earth, and other planets, 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 across the sky 	<ul style="list-style-type: none"> 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 Recognise that some mechanisms, including gears, pulleys, levers and springs, allow a smaller force to have a greater effect 	<ul style="list-style-type: none"> 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 actions of acid on bicarbonate of soda
Growth	Life Cycles and Reproduction	
<ul style="list-style-type: none"> Describe the changes as humans develop from birth to old age 	<ul style="list-style-type: none"> 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. 	

Working scientifically

Planning Investigations:

- With prompting, planning different types of scientific enquiries to answer questions
- With prompting, recognising and controlling variables where necessary

Conducting Experiments:

- Selecting, with prompting, and using appropriate equipment to take readings
- Taking precise measurements using standard units
- Taking and processing repeat readings

Recording Evidence:

- Recording data and results
- Recording data using labelled diagrams, keys, tables and charts
- Using line graphs to record data

Reporting Findings:

- Reporting and presenting findings from enquiries, including conclusions and, with prompting, suggesting causal relationships
- With support, presenting findings from enquiries orally and in writing
- With prompting, identifying that not all results may be trustworthy

Conclusions and Predictions:

- Suggesting how evidence can support conclusions
- Suggesting further comparative or fair tests