

Science Progression of Skills Year 5

YEAR 5

National Curriculum objectives:

Working Scientifically

I can **plan** different types of scientific enquires to answer questions, including recognising and controlling variables where necessary.

I can **take measurements**, using range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.

I can **record data** and results of increasing complexity, using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

I can use test results to **make predictions** to set up further comparative and fair tests.

I can talk about and **present findings** from enquires, including conclusions, casual relationships and explanations of reliable the information is.

I can **identify** scientific evidence that has been used to support or refute ideas or arguments.

Animals, including humans

I can **describe** the changes as humans develop to old age.

Everyday Materials

I can **compare** and group together everyday materials on basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.

I can **explain** that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from solution.

I can **use knowledge** of solids, liquids and gases to decide how mixtures might be separated, including by filtering, sieving and evaporating,

I can **give reasons**, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.

I can **demonstrate** that dissolving, mixing and changes of state are reversible changes.

I can **explain** that some changes result in the formation of new materials, and that kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Forces and Magnets

I can **explain** that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.

I can **demonstrate** the effects of air resistance, water resistance and friction, that act between moving surfaces.

I can show that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

Earth and Space

I can **describe** the movement of the Earth, and planets, relative to the Sun in the solar system.

I can **describe** the movement of the Moon relative to the Earth.

I can **describe** the Sun, Earth and Moon as approximately spherical bodies.

I can **explain** day and night, and the apparent movement of the sun across the sky, using the idea of the Earth's rotation.

Living Things & Their Habitats

I can **describe** the differences in the life cycles of a mammal, an amphibian, an insect and a bird.

I can **describe** how some animals and plants reproduce.