

## Science Progression of Skills Year 6

### YEAR 6

#### National Curriculum objectives:

##### Working Scientifically

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

I can **take accurate measurements**, using a range of scientific equipment, taking repeat readings when appropriate.

I can **record** complex data and results using scientific diagrams and labels, classifications 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 **report and present findings** from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

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

I can **describe and evaluate** my own and other people's scientific ideas using evidence from a range of sources.

I can **group and classify** things and recognise patterns.

I can find things out using a wide range of secondary sources of information.

I can use scientific language and **ideas to explain, evaluate and communicate** my methods and findings.

##### Animals Including Humans

I can **identify** and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.

I can **recognise** the impact of diet, exercise, drugs and lifestyle on the way the body functions.

I can **describe** the ways in which nutrients and water are transported within animals, including humans.

##### Electricity

I can show that the brightness of a lamp or the volume of a buzzer depends on the number and voltage of cells used in the circuit.

I can **compare** and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.

I can draw a diagram using recognised symbols to represent a simple circuit.

##### Evolution and Inheritance

I can **explain** that the kinds of living things that live on the earth now are different from those that inhabited the Earth millions of years ago and that fossils provide this information.

I can **explain** that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.

I can give examples of how animals and plants are adapted to suit their environment in different ways and can explain that adaptation may lead to evolution.

##### Light

I can show that light appears to travel in straight lines

I can **explain** that light travels in straight lines and that objects are seen because they give out or reflect light into the eye.

I can **demonstrate and explain** that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.

I can **demonstrate** that light travels in straight lines to show why shadows have the same shape as the objects that cast them.

##### Living Things and Their Habitats

I can give reasons for classifying plants and animals based on specific characteristics.

I can **describe** how [plants, animals and micro-organisms are classified into broad groups according to common observable characteristics and based on similarities and differences.