

## Band 6 – Science

### Working Scientifically

Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary (Year 6 focus).

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

Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate (Year 6 focus).

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

Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs (Year 6 focus).

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

Use test results to make predictions to set up further comparative and fair tests (Year 6 focus).

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

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 (Year 6 focus).

*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.*

Identify scientific evidence that has been used to support or refute ideas or arguments (Year 6 focus).

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

### Animals Including Humans

Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.

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

Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.

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

Describe the ways in which nutrients and water are transported within animals, including humans.

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

### Electricity

Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.

*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.*

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 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.*

Use recognised symbols when representing a simple circuit in a diagram.

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

### Evolution & Inheritance

Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.

*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.*

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

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

Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

*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

Recognise that light appears to travel in straight lines.

*I can show that light appears to travel in straight lines.*

Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.

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

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 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.*

Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

*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 & Their Habitats

Give reasons for classifying plants and animals based on specific characteristics.

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

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.

*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.*