

# **Year 6 End of Year Science Expectations**

# **Working at the Expected Standard (EXP):**

Pupil(s) can confidently and independently:

### **Working Scientifically**

- ➤ 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.
- Record data and results of increasing complexity 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.
- 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.
- Describe and evaluate their own and other people's scientific ideas related to topics in the national curriculum (including ideas that have changed over time), using evidence from a range of sources
- Group and classify things and recognise patterns.
- Find things out using a wide range of secondary sources of information.
- Use appropriate scientific language and ideas from the national curriculum to explain, evaluate and communicate his/her methods and findings.

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

#### **Evolution and 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.
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
- ldentify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

## Light

- Recognise 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.
- > 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.

### Living things and their habitats

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