

Science in Year 6

In Year 6, many of the scientific concepts that children meet are more abstract, such as the study of evolution, or the behaviour of light. There are still plenty of opportunities for investigation, and also to find out about the work of some great scientists of today and the past.

There are no statutory tests for students in Science at Key Stage 2, although a very small number of children from any given school may be selected to be part of the bi-annual science sample testing. This involves taking three short tests of about twenty- five minutes each. The results of these tests are not shared with parents or schools, but are used to get a sense of the national picture.

Scientific Investigation

Investigation work should form part of the broader science curriculum. During Year 6, some of the skills your child might focus on include:

Plan a range of scientific investigations and managing the variables effectively

Take precise measurements, and repeat tests where appropriate to improve the validity of the results

Present results using tables, scatter graphs, line graphs and other diagrams

Explain the conclusions drawn from results, including their limitations

Living Things and their Habitats

Describe how living things are classified into groups, including micro-organisms

Give reasons for the classification of plants and of animals according to their characteristics

At this age, invertebrate animals can be grouped into categories such as insects, spiders, snails and worms.

Animals including Humans

Know the functions of the main parts of the circulatory system such as the heart, lungs, blood vessels and blood

Describe how nutrients and water are transported within animals

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

Evolution and Inheritance

Recognise that fossils provide information about life on Earth millions of years ago

Understand that offspring are not normally identical to their parents

Identify that plants and animals are adapted to their environments, and that this adaptation leads to evolution over long periods of time

Evolution is not a planned process of adaptation, but rather the unintended result of more random changes, which led to animals being better-suited to the environments in which they lived.

Parent Tip

Conversations about evolution and inheritance often lead to interesting discussions at home. Some traits which are inherited are not always passed on, such as hair or eye colour. Interestingly, you can also compare whether members of your family have attached or detached earlobes, or whether they can roll their tongues.

Light

Recognise that light appears to travel in straight lines

Understand that we see things because light is reflected off objects and into the eye

Explain how shadows are formed

Electricity

Compare the variation in performance of bulbs and buzzers by changing the number of cells in a circuit

Use the recognised scientific symbols to draw a simple circuit diagram