# Science (Year 2)

### Thinking and Working Scientifically

#### Models and representations

- 2TWSm.01 Know that a model represents an object or idea in a clear way.
- 2TWSm.02 Make and use a physical model of a familiar system or idea.
- 2TWSm.03 Describe the difference between a diagram and a picture.

#### Scientific enquiry: purpose and planning

- 2TWSp.01 Ask questions about the world around us and talk about how to find answers.
- 2TWSp.02 Make predictions about what they think will happen.

#### Carrying out scientific enquiry

- 2TWSc.01 Sort and group objects, materials and living things based on observations of the similarities and differences between them.
- 2TWSc.02 Use given equipment appropriately.
- 2TWSc.03 Take measurements in non-standard units.
- 2TWSc.04 Follow instructions safely when doing practical work.
- 2TWSc.05 Use a given secondary information source to find an answer to a question.
- 2TWSc.06 Collect and record observations and/or measurements by annotating images and completing simple tables.

#### Scientific enquiry: analysis, evaluation and conclusions

- 2TWSa.01 Describe what happened during an enquiry and if it matched their predictions.
- 2TWSa.02 Identify simple patterns in results, e.g. increasing and decreasing patterns.
- 2TWSa.03 Present and interpret results using tables and block graphs.

#### **Biology**

#### Structure and function

- 2Bs.01 Compare how animals, including humans, are similar and different in their external body parts and skin covering.
- 2Bs.02 Identify the different types of human teeth, explain how they are suited to their functions and describe how to care for teeth.

#### Life processes

- 2Bp.01 Know that humans need to manage diet, maintain hygiene and move regularly to be healthy.
- 2Bp.02 Describe what illness is and describe the common signs of illness in humans.
- 2Bp.03 Describe how the offspring of animals, including humans, change as they become older.
- 2Bp.04 Know that animals, including humans, produce offspring that have a combination of features from their parents.

#### **Ecosystems**

- 2Be.01 Know that an environment in which a plant or animal naturally lives is its habitat.
- 2Be.02 Know that different habitats contain different plants and animals.
- 2Be.03 Identify similarities and differences between local environments in terms of hot, cold, dry, wet, many plants, few plants, many animals and few animals.

## Chemistry

#### Materials and their structure

2Cm.01 Understand that some materials occur naturally and others are manufactured.

#### **Properties of materials**

- 2Cp.01 Describe a property as a characteristic of a material and understand that materials can have more than one property.
- 2Cp.02 Explain why materials are chosen for specific purposes on the basis of their properties.
- 2Cp.03 Know that materials can be tested to determine their properties.

#### Changes to materials

2Cc.01 Know that some changes can turn a material into a different material.

#### **Physics**

#### Forces and energy

- 2Pf.01 Know that forces can change the movement of an object.
- 2Pf.02 Know that forces can change the shape of an object.
- 2Pf.03 Recognise that things will only speed up, slow down or change direction when something else causes them to do so.

#### Light and sound

- 2Ps.01 Know that there are many light sources, including the Sun.
- 2Ps.02 Know that darkness is the absence of light.

#### **Electricity and magnetism**

- 2Pe.01 Identify how we use electricity and describe how to be safe with it.
- 2Pe.02 Recognise the components of simple circuits (limited to cells, wires and lamps).
- 2Pe.03 Explore the construction of simple series circuits (limited to cells, wires and lamps).

#### Earth and Space

#### **Planet Earth**

- 2ESp.01 Describe and compare different types of rock.
- 2ESp.02 Know rocks are extracted from the Earth in different ways, including from quarries, mines and riverbeds.
- 2ESp.03 Know that human activity can affect the environment.

## Earth in space

2ESs.01 Describe the apparent movement of the Sun during the day.

## **Science in Context**

2SIC.01 Talk about how some of the scientific knowledge and thinking now was different in the past.

2SIC.02 Talk about how science explains how objects they use, or know about, work.

2SIC.03 Know that everyone uses science and identify people who use science professionally.

2SIC.04 Talk about how science helps us understand our effect on the world around us.