



Cambridge Lower Secondary Programme Science Curriculum Framework: Year 7

Scientific Enquiry

Students should be able to:

- Suggest ideas that may be tested.
- Outline plans to carry out suitable investigations, including a fair test.
- Make predictions using previous knowledge.
- Identify things to be measured, choose appropriate apparatus and use it correctly.
- Make careful observations.
- Present data in the form of tables, bar charts and/or line graphs.
- Use information from secondary sources.
- Make conclusions from collected data.
- Recognise results and observations that do not fit into a pattern.

Biology

Plants

Students should be able to:

- Recognise the positions and know the functions of the major organs of flowering plants. Bp1

Humans as Organisms

Students should be able to:

- Recognise the positions and know the functions of the major organ systems of the human body. Bh1

Cells and Organisms

Students should be able to:

- Identify the seven characteristics of living things and relate these to a wide range of organisms. Bc1
- Identify the structures present in plant and animal cells as seen with a simple light microscope. Bc2
- Compare the structure of plant and animal cells. Bc2
- Relate the structure of some common cells to their functions. Bc2
- Understand that cells can be grouped together to form tissues, organs and organisms. Bc2

Variation and Classification

Students should be able to:

- Understand what is meant by a species. Bv1
- Investigate variation within a species. Bv1
- Classify animals and plants into major groups. Bv3

Ecosystems

Students should be able to:

- Describe how organisms are adapted to their habitat. Be1
- Draw simple food chains. Be2



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Chemistry

Chemical Change

Students should be able to:

- Use indicators to distinguish acid and alkaline solutions. Cc5
- Use a pH scale. Cc5
- Understand neutralisation and some of its applications. Cc6

States of Matter and Physical Change

Students should be able to:

- Distinguish between solids, liquids and gases and identify changes of state. Cs1
- Use simple kinetic theory to explain changes of state, dissolving and diffusion. Cs2
- Describe a variety of ways of obtaining pure substances from mixtures. Cs3
- Recognise a mixture and a solution. Cm3 Cs3
- Recognise burning as a non-reversible, exothermic reaction. Cs4 Cc3
- Distinguish between physical and chemical changes. Cs4

Materials

Students should be able to:

- Distinguish between metals and non-metals. Cm4
- Describe everyday materials and their physical properties. Cm5

Physics

Measurement and Properties of Matter

Students should be able to:

- Choose the appropriate apparatus for measurement. Pp1
- Use apparatus carefully and accurately. Pp1
- Record measurements using the correct units. Pp1
- Recognise the way that particles are arranged and move in solids, liquids and gases. Pp2
- Explain the expansion of solids, liquids and gases. Pp3

Forces and Motion

Students should be able to:

- Describe the effect of forces on the motion and shape of objects. Pf2

Energy

Students should be able to:

- Name the major sources of energy including fuels. Pe1
- Describe alternative energy sources including solar and wind. Pe1
- Recognise various forms of energy and understand simple energy changes. Pe2

Electricity

Students should be able to:

- Distinguish between conductors and insulators. Pc1
- Set up simple circuits and draw circuit diagrams. Pc3
- Recognise the effects of circuit components such as cells, lamps and resistors. Pc4

Note: The codes provided refer to the corresponding Checkpoint learning outcomes.