

Long-term planning template

Cambridge Lower Secondary Science Stage 7		
Framework Code	Learning Objective	Ongoing (O) Term ref (T1, T2, T3)
	Scientific enquiry/ Ideas and evidence	
7Ep1	Be able to talk about the importance of questions, evidence and explanations	
7Ep2	Make predictions and review them against evidence	
	Scientific enquiry/Plan investigative work	
7Ep3	Suggest ideas that may be tested	
7Ep4	Outline plans to carry out investigations, considering the variables to control, change or observe	
7Ep5	Make predictions referring to previous scientific knowledge and understanding	
7Ep6	Identify appropriate evidence to collect and suitable methods of collection	
7Ep7	Choose appropriate apparatus and use it correctly	
	Scientific enquiry/Obtain and present evidence	
7Eo1	Make careful observations including measurements	
7Eo2	Present results in the form of tables, bar charts and line graphs	
7Eo3	Use information from secondary sources	
	Scientific enquiry/Consider evidence and approach	
7Ec1	Make conclusions from collected data, including those presented in a graph, chart or spreadsheet	
7Ec2	Recognise results and observations that do not fit into a pattern, including those presented in a graph, chart or spreadsheet	
7Ec3	Consider explanations for predictions using scientific knowledge and understanding and communicate these	
7Ec4	Present conclusions using different methods	
	Biology/Plants	
7Bp1	Recognise the positions, and know the functions of the major organs of flowering plants, e.g. root, stem, leaf	
	Biology/Humans as organisms	
7Bh1	Explore the role of the skeleton and joints and the principle of antagonistic muscles	
7Bh2	Recognise the positions and know the functions of the major organ systems of the human body. Secondary sources can be used	
7Bh3	Research the work of scientists studying the human body	
	Biology/Cells and organisms	
7Bc1	Identify the seven characteristics of living things and relate these to a wide range of organisms in the local and wider environment	
7Bc2	Know about the role of micro-organisms in the breakdown of organic matter, food production and disease, including the work of Louis Pasteur	
7Bc3	Identify the structures present in plant and animal cells as seen with a simple light microscope and/or a computer microscope	

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7Bc4	Compare the structure of plant and animal cells	
7Bc5	Relate the structure of some common cells to their functions. Secondary sources can be used	
7Bc6	Understand that cells can be grouped together to form tissues, organs and organisms	
	Biology/Living things in their environment	
7Be1	Describe how organisms are adapted to their habitat, drawing on locally occurring examples. Secondary sources can be used	
7Be2	Draw and model simple food chains	
7Be3	Discuss positive and negative influence of humans on the environment, e.g. the effect on food chains, pollution and ozone depletion	
7Be4	Discuss a range of energy sources and distinguish between renewable and non-renewable resources. Secondary sources can be used	
	Biology/Variation and classification	
7Bv1	Understand what is meant by a species	
7Bv2	Investigate variation within a species. Secondary sources can be used	
7Bv3	Classify animals and plants into major groups, using some locally occurring examples	
	Chemistry/States of matter	
7Cs1	Show in outline how the particle theory of matter can be used to explain the properties of solids, liquids and gases, including changes of state	
	Chemistry/Material properties	
7Cp1	Distinguish between metals and non-metals	
7Cp2	Describe everyday materials and their physical properties	
	Chemistry/Material changes	
7Cc1	Use a pH scale	
7Cc2	Understand neutralisation and some of its applications	
7Cc3	Use indicators to distinguish acid and alkaline solutions	
	Chemistry/The Earth	
7Ce1	Observe and classify different types of rocks and soils	
7Ce2	Research simple models of the internal structure of the Earth	
7Ce3	Examine fossils and research the fossil record	
7Ce4	Discuss the fossil record as a guide to estimating the age of the Earth	
7Ce5	Learn about most recent estimates of the age of the Earth	
	Physics/Forces and motion	
7Pf1	Describe the effects of forces on motion, including friction and air resistance	
7Pf2	Describe the effect of gravity on objects. Secondary sources can be used	
	Physics/Energy	
7Pe1	Understand that energy cannot be created or destroyed and that energy is always conserved	
7Pe2	Recognise different energy types and energy transfers	
	Physics/The Earth and beyond	
7Pb1	Describe how the movement of the Earth causes the <i>apparent</i> daily and annual movement of the sun and the stars	
7Pb2	Describe the relative position and movement of the planets and the sun in the solar	

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	system	
7Pb3	Discuss the impact of the ideas and discoveries of Copernicus, Galileo and more recent scientists	
7Pb4	Understand that the sun and other stars are sources of light and that planets and other bodies are seen by reflected light	

Notes:

- You should enter all the learning objectives for the stage here. The number of lines in the table should match the total number of learning objectives for the stage.
- The final column should give a clear overview of coverage. Where an objective is addressed in more than one unit, all of the relevant units should be listed – this will help you to achieve a balance, ensuring that coverage is sufficient and/or not too frequent at the expense of others.