

## A completed example of Long-term Planning\_3

List of objectives colour-coded by term of first introduction:

Ongoing

Term 1

Term 2

Term 3

### LEARNING OBJECTIVES – an overview

Framework Code	Learning Objective
	<b>Ideas and evidence</b>
7Ep1	Be able to talk about the importance of questions, evidence and explanations.
7Ep2	Make predictions and review them against evidence.
	<b>Plan investigative work</b>
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.
	<b>Obtain and present evidence</b>
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.
	<b>Consider evidence and approach</b>
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.

**(Continued)**

Framework Code	Learning Objective
	<b>Plants</b>
7Bp1	Recognise the positions, and know the functions of the major organs of flowering plants, e.g. root, stem, leaf.
	<b>Humans as Organisms</b>
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.
	<b>Cells and Organisms</b>
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.
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.
	<b>Living Things in their Environment</b>
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.
	<b>Variation and Classification</b>
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.
	<b>States of Matter</b>
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.

**(Continued)**

Framework Code	Learning Objective
	<b>Material Properties</b>
7Cp1	Distinguish between metals and non-metals.
7Cp2	Describe everyday materials and their physical properties.
	<b>Material Changes</b>
7Cc1	Use a PH scale.
7Cc2	Understand neutralisation and some of its applications.
7Cc3	Use indicators to distinguish acid and alkaline solutions.
	<b>The Earth</b>
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.
	<b>Forces and Motion</b>
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.
	<b>Energy</b>
7Pe1	Understand that energy cannot be created or destroyed and that energy is always conserved.
7Pe2	Recognise different energy types and energy transfers.
	<b>The Earth and Beyond</b>
7Pb1	Describe how the movement of the Earth causes the apparent 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 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:*

- *The number of lines in the table will match the total number of learning objectives for the stage.*
- *Framework codes will be entered in the order that they appear.*
- *Learning objectives will appear in full.*
- *The learning objectives can be colour coded:*
  - *Ongoing.*
  - *A different colour for each term – once only when it is first introduced.*