Curriculum Map

Level B	Attainment Outcome	Strand	5–14 Guidelines Attainment Targets	Page ref*
Characteristics of materials	Earth and Space	Materials from Earth	● make observations of differences in the properties of common materials ● relate uses of everyday materials to properties	31 31
Magnets and springs	Energy and Forces	Forces and their Effects	● describe the effect that a push or pull can have on the direction, speed or shape of an object ● give examples of magnets in everyday use ● describe the interaction of magnets in terms of the forces of attraction and repulsion	48 48 48
Teeth and eating	Living Things and the Processes of Life	Interaction of Living Things with their Environment	● give examples of feeding relationships found in the local environment	62

Level C	Attainment Outcome	Strand	5–14 Guidelines Attainment Targets	Page ref*
Changing state	Earth and Space	Materials from Earth	● describe the differences between solids, liquids and gases ● give some everyday uses of solids, liquids and gases	32 32
Gases around us	Earth and Space	Materials from Earth	● describe the differences between solids, liquids and gases ● give some everyday uses of solids, liquids and gases	32 32
Reversible and irreversible changes	Earth and Space	Changing Materials	● describe changes when materials are mixed ● distinguish between soluble and insoluble materials	36 36
Solids, liquids and how they can be separated	Earth and Space	Changing Materials	● describe changes when materials are mixed ● describe how solids of different sizes can be separated ● distinguish between materials that are soluble and insoluble in water ● describe in simple terms the changes that occur when water is heated or cooled	36 36 36 36
Changing sounds	Energy and Forces	Properties and Uses of Energy	● link sound to sources of vibration	41
Circuits and conductors	Energy and Forces	Properties and Uses of Energy	● construct simple battery-operated electrical circuits, identifying the main components ● classify materials as electrical conductors or insulators and describe how these are related to safe use of electricity	41 41

Level C (continued)	**Attainment Outcome**	**Strand**	**5–14 Guidelines Attainment Targets**	**Page ref***
How we see things	Energy and Forces	Properties and Uses of Energy	● link light to shadow formation ● give examples of light being reflected from surfaces	41 41
Light and shadows	Energy and Forces	Properties and Uses of Energy	● link light to shadow formation ● give examples of light being reflected from surfaces	41 41
Technological enquiry	Energy and Forces	Properties and Uses of Energy	● construct simple battery-operated electrical circuits, identifying the main components	41
Changing circuits	Energy and Forces	Conversion and Transfer of Energy	● describe the energy conversions in the components of an electrical circuit	45
Friction	Energy and Forces	Forces and their Effects	● give some examples of friction ● explain friction in simple terms ● describe air resistance in terms of friction	49 49 49
Helping plants grow well	Living Things and the Processes of Life	The Processes of Life	● describe the broad functions of the main parts of flowering plants	57
Keeping healthy	Living Things and the Processes of Life	The Processes of Life	● identify the main organs of the human body ● describe the broad functions of the organs of the human body	57 57
Moving and growing	Living Things and the Processes of Life	The Processes of Life	● name the life processes common to humans and other animals	57

Level D	Attainment Outcome	Strand	5–14 Guidelines Attainment Targets	Page ref*
Earth, Sun and Moon	Earth and Space	Earth in Space	● relate the movement of planets around the Sun to gravitational forces	29
Rocks and soils	Earth and Space	Materials from Earth	● give examples of useful materials that we obtain from the Earth's crust ● describe how soils are formed	32 32
More about dissolving	Earth and Space	Changing Materials	● explain how evaporation and filtration can be used in the separation of solids from liquids	37
Reversible and irreversible changes	Earth and Space	Changing Materials	● explain how evaporation and filtration can be used in the separation of solids from liquids	37
Changing circuits	Energy and Forces	Properties and Uses of Energy	● construct a series circuit following diagrams using conventional symbols ● describe the effect of changing the number of components in a series circuit	42 42
Changing sounds	Energy and Forces	Properties and Uses of Energy	● use the terms 'pitch' and 'volume' to describe sound	42
Keeping warm	Energy and Forces	Properties and Uses of Energy	● distinguish between 'heat' and 'temperature'	42
Forces in action	Energy and Forces	Forces and their Effects	● describe the relationship between the Earth's gravity and the weight of an object	49
Friction	Energy and Forces	Forces and their Effects	● give examples of streamlining and explain how this lowers resistance	49

Level D (continued)	**Attainment Outcome**	**Strand**	**5–14 Guidelines Attainment Targets**	**Page ref***
Keeping healthy	Living Things and the Processes of Life	The Processes of Life	● describe the role of lungs in breathing	58
Life cycles	Living Things and the Processes of Life	The Processes of Life	● describe the main stages in flowering-plant reproduction	58
Environmental enquiry	Living Things and the Processes of Life	Interaction of Living Things with their Environment	● explain how responses to changes in the environment might increase the chances of survival	63
Habitats	Living Things and the Processes of Life	Interaction of Living Things with their Environment	● describe examples of human impact on the environment that have brought about beneficial changes and examples that have detrimental effects ● give examples of how plants and animals are suited to their environment	63 63
Interdependence and adaptation	Living Things and the Processes of Life	Interaction of Living Things with their Environment	● give examples of how plants and animals are suited to their environment	63

Level E	Attainment Outcome	Strand	5–14 Guidelines Attainment Targets	Page ref*
More about dissolving	Earth and Space	Changing Materials	● describe the effect of temperature on solubility	38
Changing sounds	Energy and Forces	Properties and Uses of Energy	● explain what happens when sound passes through different materials	43
Keeping warm	Energy and Forces	Properties and Uses of Energy	● give examples of everyday uses of good and poor conductors of heat	43
Light and shadows	Energy and Forces	Properties and Uses of Energy	● explain what happens when light passes though different materials	43
Forces in action	Energy and Forces	Forces and their Effects	● describe the effects of balanced and unbalanced forces ● explain how gravity on other planets and the Moon affects the weight of an object	50 50
Micro-organisms	Living Things and the Processes of Life	Variety and Characteristic Features	● give the main distinguishing features of micro-organisms	53
Interdependence and adaptation	Living Things and the Processes of Life	Interaction of Living Things with their Environment	● construct and interpret simple food webs and make predictions of the consequences of change ● give examples of physical factors that affect the distribution of living things	64 64

*Note: page numbers reference the *5-14 National Guidelines Environmental Studies: Science, Guide for Teachers and Managers* ;
http://www.ltscotland.org.uk/5to14/images/guidescience_tcm4-122427.pdf
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