

MARINA INTERNATIONAL SCHOOL

SCIENCE SCHEME OF WORK

FORM 1 - TERM 1

WEEK	TOPIC	TOPIC DETAILS
1.1	Scientific enquiry	Ideas and evidence <ul style="list-style-type: none">• 7Ep1 Be able to talk about the importance of questions, evidence and explanations• 7Ep2 Make predictions and review them against evidence Plan investigative work <ul style="list-style-type: none">• 7Ep3 Suggest ideas that may be tested• 7Ep4 Outline plans to carry out investigations, considering the variables to control, change or observe
2.1	Scientific enquiry	<ul style="list-style-type: none">• 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 Obtain and present evidence <ul style="list-style-type: none">• 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
3.1	Scientific enquiry	Consider evidence and approach <ul style="list-style-type: none">• 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
4.1	States of matter	States of matter <ul style="list-style-type: none">• 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

WEEK	TOPIC	TOPIC DETAILS
5.1	States of matter	<ul style="list-style-type: none"> •• 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
6.1	Material properties	<ul style="list-style-type: none"> •• 7Cp1 Distinguish between metals and non-metals
7.1	Material properties	<ul style="list-style-type: none"> •• 7Cp2 Describe everyday materials and their physical properties
8.1	Material changes	<ul style="list-style-type: none"> •• 7Cc1 Use a pH scale. •• 7Cc2 Understand neutralisation and some of its applications
9.1	Material changes	<ul style="list-style-type: none"> •• 7Cc3 Use indicators to distinguish acid and alkaline solutions
10.1	The Earth	<p>7Ce1 Observe and classify different types of rocks and soils</p> <ul style="list-style-type: none"> •• 7Ce2 Research simple models of the internal structure of the Earth
11.1	The Earth	<ul style="list-style-type: none"> •• 7Ce3 Examine fossils and research the fossil record •• 7Ce4 Discuss the fossil record as a guide to estimating the age of the Earth
12.1	The Earth	<ul style="list-style-type: none"> •• 7Ce5 Learn about most recent estimates of the age of the Earth

SCIENCE SCHEME OF WORK

FORM 1 - TERM 2

WEEK	TOPIC	TOPIC DETAILS
1.1	Forces and motion	•• 7Pf1 Describe the effects of forces on motion, including friction and air resistance
2.1	Forces and motion	•• 7Pf1 Describe the effects of forces on motion, including friction and air resistance
3.1	Forces and motion	•• 7Pf2 Describe the effect of gravity on objects. Secondary sources can be used
4.1	Energy	•• 7Pe1 Understand that energy cannot be created or destroyed and that energy is always conserved
5.1	Energy	•• 7Pe1 Understand that energy cannot be created or destroyed and that energy is always conserved
6.1	Energy	•• 7Pe2 Recognise different energy types and energy transfers
7.1	The Earth and beyond	•• 7Pb1 Describe how the movement of the Earth causes the apparent daily and annual movement of the sun and the stars
8.1	The Earth and beyond	•• 7Pb1 Describe how the movement of the Earth causes the apparent daily and annual movement of the sun and the stars
9.1	The Earth and beyond	•• 7Pb2 Describe the relative position and movement of the planets and the sun in the solar system
10.1	The Earth and beyond	•• 7Pb3 Discuss the impact of the ideas and discoveries of Copernicus, Galileo and more recent scientists

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11.1	The Earth and beyond	•• 7Pb4 Understand that the sun and other stars are sources of light and that planets and other bodies are seen by reflected light

SCIENCE SCHEME OF WORK

FORM 1 - TERM 3

WEEK	TOPIC	TOPIC DETAILS
1.1	Plants	•• 7Bp1 Recognise the positions, and know the functions of the major organs of flowering plants, e.g. root, stem, leaf
2.1	Humans as organisms	•• 7Bh1 Explore the role of the skeleton and joints and the principle of antagonistic muscles
3.1	Humans as organisms	•• 7Bh2 Recognise the positions and know the functions of the major organ systems of the human body. Secondary sources can be used
4.1	Humans as organisms	•• 7Bh3 Research the work of scientists studying the human body
5.1	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
6.1	Cells and organisms	•• 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
7.1	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

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8.1	Living things in their environment	<ul style="list-style-type: none"> • 7Be3 Discuss positive and negative influence of humans on the environment, e.g. the effect on food chains,
9.1	Living things in their environment	<ul style="list-style-type: none"> • 7Be4 Discuss a range of energy sources and distinguish between renewable and non-renewable resources. Secondary sources can be used
10.1	Variation and classification	<ul style="list-style-type: none"> • 7Bv1 Understand what is meant by a species • 7Bv2 Investigate variation within a species. Secondary sources can be used
11.1	Variation and classification	<ul style="list-style-type: none"> • 7Bv3 Classify animals and plants into major groups, using some locally occurring examples