

Year 7 Term 1

Homework	10%
----------	-----

Cells

Weeks 1 - 2	Topic	In this unit pupils will learn...
	<ul style="list-style-type: none"> • Organ systems, organs and tissues • Plant and animal cells • Using microscopes 	<ul style="list-style-type: none"> • that cells are the basic units of life and are organised into tissues from which organs are made • to explore cell structure and differences between plant and animal cells • about some functions of cells • to use a microscope safely and effectively • to make observations using a microscope and record these in drawings

End of week 2	Project	5%
---------------	---------	----

Weeks 3 - 4	Topic	In this unit pupils will learn...
	<ul style="list-style-type: none"> • Growth • Specialised cells • Plant reproduction 	<ul style="list-style-type: none"> • how our body grows and repairs itself • how some cells are adapted to their function • how plants reproduce

End of week 4	Test	5%
---------------	------	----

Particles

Weeks 5 - 6	Topic	In this unit pupils will learn...
	<ul style="list-style-type: none"> • Solids, liquids and gases • Properties of matter • Changing State 	<ul style="list-style-type: none"> • how the particle model can be used to explain differences between solids, liquids and gases • to use the particle model to explore the interplay between scientific theories and evidence

End of week 6	Project	5%
---------------	---------	----

Week 7	Topic	In this unit pupils will learn...
	<ul style="list-style-type: none"> • Diffusion • Pressure and density 	<ul style="list-style-type: none"> • to evaluate whether evidence supports or refutes explanations of phenomena

End of week 7	Test	5%
---------------	------	----

Energy

Weeks 8 - 9	Topic	In this unit pupils will learn...
	<ul style="list-style-type: none"> • Types of energy • Energy transfer 	<ul style="list-style-type: none"> • the concept of energy in the context of fuels as convenient and therefore valuable sources • to link the energy resources to the role of the Sun as the ultimate source of most of the Earth's energy resources • to investigate the energy resource in foods, controlling relevant variables

End of week 9	Project	5%
---------------	---------	----

Week 10	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> Fossil fuels Renewable energy 		<ul style="list-style-type: none"> the nature and origin of fossil fuels and renewable sources of energy and how their use has implications for the environment to consolidate and extend their ideas about energy resources for living things: food for people and sunlight for plants

End of week 10	Test	5%
----------------	------	----

Reproduction

Weeks 11-12	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> Male and female reproductive systems Sex cells Fertilisation Pregnancy and Birth 		<ul style="list-style-type: none"> about human reproduction to consider and compare reproductive patterns in other animals with those in humans to consider how offspring are protected and nurtured

End of week 12	Project	5%
----------------	---------	----

Week 13	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> Puberty Menstrual cycle 		<ul style="list-style-type: none"> to present data in graphs relate what they know of the way their bodies change during adolescence to explain the menstrual cycle

End of week 13	Test	5%
----------------	------	----

Week 14	Exam Revision	
---------	---------------	--

Week 15	Exams	50%
---------	-------	-----

Year 7 Term 2

Homework		10%
----------	--	-----

Acids and Alkalis

Weeks 1-2	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> Hazard Symbols Acids and Alkalis Indicators 		<ul style="list-style-type: none"> to recognise hazards and use information sources to assess risks associated with acids and alkalis about acids and alkalis as classes of chemicals with distinct properties and uses to use indicators to classify solutions as acidic, alkaline or neutral

End of week 2	Project	5%
---------------	---------	----

Week 3	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> pH scale Neutralisation 		<ul style="list-style-type: none"> to use the pH scale to compare the acidity and alkalinity of different solutions to explore neutralisation to investigate the effectiveness of different antacids, controlling appropriate variables

End of week 3	Test	5%
---------------	------	----

Electrical Circuits

Weeks 4 - 5	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Conductors and insulators • Series and parallel circuits • Switches 		<ul style="list-style-type: none"> • to extend their ideas about circuits • to use concepts of electric current and energy transfer to explain the working of circuits • to build circuits in which current flow is usefully controlled • to model current in a variety of ways • to plan safe procedures and recognise hazards

End of week 5	Project	5%
---------------	---------	----

Week 6	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Ammeters and voltmeters • Resistance • Fuses 		<ul style="list-style-type: none"> • to use ammeters to measure current • to explain patterns in the measurements of current and voltage • to use the concept of resistance qualitatively • to consider the hazards of electricity for humans

End of week 6	Test	5%
---------------	------	----

Environment

Weeks 7	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Environment • Adaptations • Daily and seasonal changes 		<ul style="list-style-type: none"> • how habitats vary • how plants and animals are adapted to live in a particular habitat

End of week 7	Project	5%
---------------	---------	----

Week 8	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Predator and prey • Food chains and food webs 		<ul style="list-style-type: none"> • about adaptations for feeding • how plants and animals interact with their environment and with each other, including feeding relationships • how to link food chains to make webs

End of week 8	Test	5%
---------------	------	----

Simple Chemical Reactions

Week 9	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Chemical and physical reactions • Combustion • Oxides 		<ul style="list-style-type: none"> • the idea that chemical change results in new substances that are different from the ones from which they were made • to explore burning as a chemical reaction involving a gas, air or oxygen • to evaluate explanations of observations • to investigate the role of air in the burning of a candle

End of week 9	Project	5%
---------------	---------	----

Week 10	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Acids and Metals • Acids and Carbonates 		<ul style="list-style-type: none"> • to identify hydrogen and carbon dioxide as substances made during some of these reactions • learn techniques for testing for gases, using laboratory equipment effectively and taking action to control risks • to use word equations as shorthand descriptions of

	reactions	
End of week 10	Test	5%
Week 11	Exam Revision	
Week 12	Exams	50%

Year 7 Term 3

Homework		10%
----------	--	-----

Forces

Weeks 1-2	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Balanced and unbalanced forces • Mass and weight • Friction 		<ul style="list-style-type: none"> • the origin of friction, air resistance, upthrust and weight and describe situations in which these forces act • to distinguish between mass and weight • to identify situations in which forces are balanced and unbalanced • to investigate friction between solids, ensuring relevant variables are controlled

End of week 2	Project	5%
---------------	---------	----

Week 3	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Upthrust • Speed • Distance time graphs 		<ul style="list-style-type: none"> • to use the concept of speed • to relate forces acting to changes in motion • to measure distance, time and force • to construct and interpret line graphs and use them to make predictions • to investigate floating in water of varying salinity, ensuring relevant variables are controlled

End of week 3	Test	5%
---------------	------	----

Variation and Classification

Weeks 4 - 5	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Environmental and inherited variation • Continuous and discontinuous variation 		<ul style="list-style-type: none"> • explore variation within and between species • investigate patterns of variation in living things and ways of representing and explaining the occurrence of variations • make qualitative observations and record these in a variety of ways

End of week 5	Project	5%
---------------	---------	----

Week 6	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> • Classification of animals • Invertebrates and vertebrates • Keys 		<ul style="list-style-type: none"> • to consider why classification is important and are introduced to scientific classification of animals • to frame questions to be answered using first-hand or secondary data • to make qualitative observations and record these in a variety of ways • to draw conclusions from observations and explain these using scientific knowledge

End of week 6	Test	5%
---------------	------	----

Solutions

Weeks	Topic	In this unit pupils will learn...
7		
<ul style="list-style-type: none"> Dissolving Filtering Evaporation 		<ul style="list-style-type: none"> about dissolving and the separation of the components of a solution and relate this to particle theory to distinguish between a 'pure' substance and a mixture to apply the particle model of solids, liquids and gases in a range of contexts

End of week 7	Project	5%
---------------	---------	----

Week 8	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> Chromatography Distillation 		<ul style="list-style-type: none"> to make measurements of temperature and mass to describe and interpret patterns in graphs and chromatograms investigate how a sample of pure salt can be obtained from a sample of rock salt, evaluating the method in terms of salt obtained

End of week 8	Test	5%
---------------	------	----

Solar System

Week 9	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> Seeing light Day and night Year and seasons 		<ul style="list-style-type: none"> that planets and satellites are seen by reflected light and that the Sun, as a star, emits light to compare the Sun with other stars to consider how evidence about the solar system has been collected and interpreted

End of week 9	Project	5%
---------------	---------	----

Week 10	Topic	In this unit pupils will learn...
<ul style="list-style-type: none"> Phases of the moon Planets 		<ul style="list-style-type: none"> to consolidate their ideas about the Sun and Moon, and use models of these to explain eclipses to use models to explain phenomena to present data as a line graph and interpret this to evaluate the strength of evidence obtained

End of week 10	Test	5%
----------------	------	----

Week 11	Exam Revision	
---------	---------------	--

Week 12	Exams	50%
---------	-------	-----