

Curriculum Overview

Science Year 8

	<u>HT1</u>	<u>HT2</u>	<u>HT3</u>	<u>HT4</u>	<u>HT5</u>	<u>HT6</u>
<u>Topic</u>	<u>Dynamic Earth</u> <u>Particles and structure</u> <u>Chemical reactions</u>	<u>Sound, light and waves</u> <u>Forces and motion</u>	<u>Health and disease</u> <u>Heredity and life cycles</u>	<u>Earth chemistry</u> <u>Particles and structure</u> <u>Chemical reactions</u> <u>Substances and properties</u>	<u>Sound, light and waves</u> <u>Earth in space</u> <u>Forces and motion</u>	<u>Variation</u> <u>Health and disease</u> <u>The cellular basis of life</u>
<u>Knowledge</u>	<ul style="list-style-type: none"> • What's in a rock Inside the earth Making rocks by heating • Representing reactions Conservation of mass • Reactions in solution • Combustion 	<ul style="list-style-type: none"> • The passive eye Seeing in colour • Describing speed Motion graphs Changing motion Drag 	<ul style="list-style-type: none"> • Good and ill health • Disease • Growth • Lifecycles 	<ul style="list-style-type: none"> • Air quality • Explaining evaporation • Exothermic and endothermic reactions • Water cycle processes • pH scale • Neutralisation • Acid rain 	<ul style="list-style-type: none"> • The ray model of light to explain images • Refraction and lenses • Days and seasons • Mass and weight Hidden forces Turning effects 	<ul style="list-style-type: none"> • Identifying and classifying organisms • Diet and exercise • Plant nutrition and photosynthesis Cellular respiration

<p>Skills</p>	<p><u>Model the processes that are responsible for rock formation and link these to the rock features.</u></p> <ul style="list-style-type: none"> Analyse patterns Discuss limitations Draw conclusions Communicate ideas Construct explanations, Review theories 	<p><u>Investigate variables on the speed of a toy car rolling down a slope.</u></p> <ul style="list-style-type: none"> Analyse patterns Discuss limitations Draw conclusions Present data Communicate ideas Construct explanations, Collect data Devise questions Plan variables Test hypothesis 	<p><u>Review the evidence for theories about how a particular species went extinct.</u></p> <ul style="list-style-type: none"> Construct explanations Critique claims Justify opinions Review theories Interrogate sources. 	<p><u>Devise an enquiry to compare how well indigestion remedies work:</u></p> <ul style="list-style-type: none"> Analyse patterns Discuss limitations Draw conclusions Present data Communicate ideas Construct explanations Critique claims Collect data Devise questions Plan variables Test hypothesis Estimate risks 	<p><u>Use ray diagrams to model how light passes through lenses and transparent materials</u></p> <ul style="list-style-type: none"> Communicate ideas Construct explanations Devise questions Test hypothesis 	<p><u>Use data from investigating fermentation with yeast to explore Respiration.</u></p> <ul style="list-style-type: none"> Analyse patterns Draw conclusions Present data Communicate ideas Construct explanations Collect data Devise questions Plan variables Test hypothesis
<p><u>Assessment Opportunities (F&S)</u></p>	<p>Retrieval practice starter Self and peer assessment of knowledge. Mid term assessment - Dynamic earth</p>	<p>Retrieval practice starter Self and peer assessment of knowledge. Mid term assessment - Sound, light and waves</p>	<p>Retrieval practice starter Self and peer assessment of knowledge. Mid term assessment - Health and disease</p>	<p>Retrieval practice starter Self and peer assessment of knowledge. Mid term assessment - Earth chemistry</p>	<p>Retrieval practice starter Self and peer assessment of knowledge. Mid term assessment - Sound, light and waves</p>	<p>Retrieval practice starter Self and peer assessment of knowledge. Mid term assessment - variation</p>

	End of topic tests. - Chemical reactions	End of topic tests. - Forces and motion	End of topic tests. - Heredity and life cycles	End of topic tests. - Chemical reactions	End of topic tests. - Earth in space, and forces and motion	End of topic tests. - Photosynthesis and respiration
<u>CEIAG</u>	Engineer	Heating engineer	Nursing Medical careers	Research Scientist	Car mechanic	Chemist
<u>Cultural Capital</u>						Museum of science and industry
<u>Cross-Curricular Links</u>	Maths - calculations	Motor vehicle - combustion	Maths - calculations Food and nutrition	Art Motor vehicles	Motor vehicles	Geography