

Curriculum Overview – Year 8 Science

Year 8 Responsive Curriculum

Unit Title	Learning	How can parents best support?
Inheritance & variation	Students will learn; <ul style="list-style-type: none"> • How your characteristics are linked to your inherited DNA and predict phenotypes of organisms using genetic diagrams • The structure, discovery and arrangement of DNA inside a cell. 	Encourage the completion of weekly homework quizzes Engage in scientific discussions Use the knowledge organiser to learn the meanings of essential keywords
Properties of materials	Students will learn; <ul style="list-style-type: none"> • The properties of composite materials • How to classify materials based on their properties and melting points 	Encourage the completion of weekly homework quizzes Engage in scientific discussions Use the knowledge organiser to learn the meanings of essential keywords
Designing materials	Students will learn; <ul style="list-style-type: none"> • That polymers are long chains of repeating units and how their properties change based on their arrangement 	Encourage the completion of weekly homework quizzes Engage in scientific discussions Use the knowledge organiser to learn the meanings of essential keywords
Sound & Light	Students will learn about; <ul style="list-style-type: none"> • How sounds are produced • How sound travels through different media • How the ear works, uses of ultrasound and the auditory range of animals • The physical properties of light • How light is reflected and refracted • About the effects of distance on light 	Encourage the completion of weekly homework quizzes Engage in scientific discussions Use the knowledge organiser to learn the meanings of essential keywords

Health & Disease	<p>The students will be studying;</p> <ul style="list-style-type: none"> • Good and ill health (factors affecting health and disease) • Disease (communicable and non-communicable) • Antibiotics and resistance <p>Investigating antimicrobials</p>	<p>Encourage the completion of weekly homework quizzes</p> <p>Engage in scientific discussions</p> <p>Use the knowledge organiser to learn the meanings of essential keywords</p>
Changes within an organisms lifetime	<p>Students will learn;</p> <ul style="list-style-type: none"> • That growth is caused by the multiplication of cells • The lifecycles of plant and animals cells and the importance of their organelles at different stages of the cycle. 	<p>Encourage the completion of weekly homework quizzes</p> <p>Engage in scientific discussions</p> <p>Use the knowledge organiser to learn the meanings of essential keywords</p>
Solubility	<p>Students will learn;</p> <ul style="list-style-type: none"> • The factors that affect the solubility of substances and how to draw and interpret solubility graphs 	<p>Encourage the completion of weekly homework quizzes</p> <p>Engage in scientific discussions</p> <p>Use the knowledge organiser to learn the meanings of essential keywords</p>
Earths resources	<p>Students will learn;</p> <ul style="list-style-type: none"> • The definition and catagorisation of rocks and minerals • The structure of the Earth and what happens when there is movement of tectonic plates. • The differences between extrinsic and intrinsic rocks 	<p>Encourage the completion of weekly homework quizzes</p> <p>Engage in scientific discussions</p> <p>Use the knowledge organiser to learn the meanings of essential keywords</p>
Human lifestyles & Health	<p>Students will learn;</p> <ul style="list-style-type: none"> • What is meant by a 'balanced diet' • The affects of exercise on the body • The reasons people have different dietary requirements based on age, weight, exercise 	<p>Encourage the completion of weekly homework quizzes</p> <p>Engage in scientific discussions</p> <p>Use the knowledge organiser to learn the meanings of essential keywords</p>
Biochemistry	<p>Students will learn;</p> <ul style="list-style-type: none"> • The difference between aerobic respiration and breathing • The products of aerobic respiration • What a food chain Is and the affects of changing ecosystems 	<p>Encourage the completion of weekly homework quizzes</p> <p>Engage in scientific discussions</p> <p>Use the knowledge organiser to learn the meanings of essential keywords</p>

Understanding chemical reactions	<p>Students will learn;</p> <ul style="list-style-type: none"> • What a solution and a precipitate are • How the position of metals on the reactivity series impacts displacement reactions • What is meant by the conservation of mass 	<p>Encourage the completion of weekly homework quizzes Engage in scientific discussions Use the knowledge organiser to learn the meanings of essential keywords</p>
Earth & Sun	<p>Students will learn;</p> <ul style="list-style-type: none"> • The affects of seasons and the Earths temperature changes 	<p>Encourage the completion of weekly homework quizzes Engage in scientific discussions Use the knowledge organiser to learn the meanings of essential keywords</p>