

Landau Learner Curriculum Overview

Subject: Science

Director of Learning: DDB

Year: 10

Curriculum organisation				
Students are taught in groups based on ability for the equivalent of 5 single session per week. Most students follow the AQA Combined Science pathway, which includes Biology, Chemistry and Physics and is the equivalent of 2 GCSEs or some students follow the AQA Separate Science pathway; resulting in 1 GCSE in each of Biology, Chemistry and Physics.				
What topics will students be studying this year? Includes links to National Curriculum, Curriculum Intent and Prior Related Learning*				
Term 1:	Term 2:	Term 3:	Term 4:	Term 5:
<ul style="list-style-type: none"> Bioenergetics Chemical changes Atomic structure Interpreting data and drawing graphs 	<ul style="list-style-type: none"> Bioenergetics Chemical changes Atomic structure Interpreting data and drawing graphs 	<ul style="list-style-type: none"> Homeostasis & Response Rate & Extent of chemical change Forces & Motion Mathematical skills 	<ul style="list-style-type: none"> Ecology Organic Chemistry Waves Chemistry of the Atmosphere Working scientifically and required practicals 	<ul style="list-style-type: none"> Ecology Organic Chemistry Waves Chemistry of the Atmosphere Working scientifically and required practicals
<p>Links: Prior learning KS3 – Knowledge of the types of respiration and respiration, photosynthesis reactions. An understanding of the properties and reactions of acids and alkalis and a variety of chemical reactions. Knowledge of the particle model of substances.</p> <p>GCSE Specification: <i>Combined Science</i> – Bioenergetics, Chemical changes, Atomic structure <i>Separate Science</i> – Bioenergetics, Chemical changes, Atomic structure</p> <p>Curriculum Intent: Development of knowledge, literacy, numeracy and practical skills. Students are equipped to think critically about the world around them and aware of the social, economic and ethical issues.</p>	<p>Links: Prior learning KS3 – Knowledge of the types of respiration and respiration, photosynthesis reactions. An understanding of the properties and reactions of acids and alkalis and a variety of chemical reactions. Knowledge of the particle model of substances.</p> <p>GCSE Specification: <i>Combined Science</i> – Bioenergetics, Chemical changes, Atomic structure <i>Separate Science</i> – Bioenergetics, Chemical changes, Atomic structure</p> <p>Curriculum Intent: Development of knowledge, literacy, numeracy and practical skills. Students are equipped to think critically about the world around them and aware of the social, economic and ethical issues.</p>	<p>Links: Prior learning KS3 – Knowledge of the human reproductive system. An understanding of forces and their influence on motion.</p> <p>GCSE Specification: <i>Combined Science</i> – Homeostasis and response, The rate and extent of chemical change, Forces <i>Separate Science</i> – Homeostasis and response, The rate and extent of chemical change, Forces</p> <p>Curriculum Intent: Development of knowledge, literacy, numeracy and practical skills. Students are equipped to think critically about the world around them and aware of the social, economic and ethical issues.</p>	<p>Links: Prior learning KS3 – An understanding of Ecosystems and competition in biological systems. An understanding of climate change, A knowledge of types of waves, including sound and light and the behaviour of light.</p> <p>GCSE Specification: <i>Combined Science</i> – Ecology, Organic chemistry, Chemistry of the atmosphere, Waves <i>Separate Science</i> – Homeostasis and response, Organic chemistry, Chemistry of atmosphere, Waves</p> <p>Curriculum Intent: Development of knowledge, literacy, numeracy and practical skills. Students are equipped to think critically about the world around them and aware of the social, economic and ethical issues.</p>	<p>Links: Prior learning KS3 – An understanding of Ecosystems and competition in biological systems. An understanding of climate change, A knowledge of types of waves, including sound and light and the behaviour of light.</p> <p>GCSE Specification: <i>Combined Science</i> – Ecology, Organic chemistry, Chemistry of the atmosphere, Waves <i>Separate Science</i> – Homeostasis and response, Organic chemistry, Chemistry of atmosphere, Waves</p> <p>Curriculum Intent: Development of knowledge, literacy, numeracy and practical skills. Students are equipped to think critically about the world around them and aware of the social, economic and ethical issues.</p>
Equipment needed for sessions:			What can you do to support your child?	
<ul style="list-style-type: none"> Science exercise book. CGP Science revision guide (Combined Science or Biology, Chemistry and Physics). Their Science teacher will provide worksheets and information that are being used in session. 			<ul style="list-style-type: none"> Encourage your child to regularly read their CGP Science revision guide. Encourage your child to complete the homework tasks they are set by their Science teachers to a high standard, asking them to show you their finished work. Encourage your child to complete any set tasks on Educake, and encourage them to complete additional questions they can set themselves. 	
How will learning be assessed and progress measured?			Extension and enrichment activities:	
<ul style="list-style-type: none"> Trial examinations carried out at selected points during the year. End of topic summative assessments. Marking of homework/written assessments is carried out on a regular basis in line with the College marking policy. Regular peer and self-marking. 			<ul style="list-style-type: none"> Science clinic extension – every week on Monday. 	