



The Brades Lodge

# Long Term Planning for: Science

Year 7:

AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 1	SPRING TERM 2	SUMMER TERM 1	SUMMER TERM 2
<b>Cells and the Human body</b>	<b>States of matter</b>	<b>Energy</b>	<b>Acids and Alkalis</b>	<b>The solar system</b>	<b>Living things and their habitat</b>
<p><b>Intent:</b> In this Biology topic students will explore: • What are cells made from? • How can cells be specialised?</p> <p><b>Implementation:</b> In lessons using microscopes to study cells and diagrams comparing animal and plant cells, White boards and short tasks mainly teacher led.</p> <p><b>Impact:</b> To enable students to recognise plant and animals cells and how to use a microscope</p>	<p><b>Intent:</b> In this first chemistry topic students will explore: • How are particles arranged?</p> <p><b>Implementation:</b> In lessons using practical and written work, White boards, and short tasks mainly teacher led.</p> <p><b>Impact:</b> To enable students to describe the properties of solids, liquids and gases</p>	<p><b>Intent:</b> In this physics topic students will explore: • What are the different stress of energy</p> <p><b>Implementation:</b> In lessons using practical and written work, White boards, and short tasks mainly teacher led.</p> <p><b>Impact:</b> To enable students to Identify the 9 energy stores and systems Describe energy transfers</p>	<p><b>Intent:</b> In this chemistry topic students will explore how we identify acids and alkalis and their uses</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to recognise Hazard symbols and risk assessments • Describe substances using the pH scale.</p>	<p><b>Intent:</b> In this physics topic students will explore: • How does the Earth's position in Space affect us?</p> <p><b>Implementation:</b> In lessons using practical and written work, White boards, and short tasks mainly teacher led.</p> <p><b>Impact:</b> To enable students to understand The Solar System and beyond. • The cause of day and night and seasons.</p>	<p><b>Intent:</b> In this Biology topic students will explore reproduction and the life cycles of plants, mammals, amphibians, insects and birds</p> <p><b>Implementation:</b> In lessons using practical and written work, White boards and short tasks mainly teacher led.</p> <p><b>Impact:</b> To enable students to recognise the stages in the process of sexual reproduction.</p>



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Year 8:

AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 1	SPRING TERM 2	SUMMER TERM 1	SUMMER TERM 2
Pure and impure substances	Electrical circuits	Human nutrition	Materials	Light	Ecology
<p><b>Intent:</b> In this Chemistry topic students will explore: The nature of mixtures. • What are solutions and what is solubility?</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to be able to identify What is a mixture? • What is a solution? • What techniques are best for separating certain mixtures?</p>	<p><b>Intent:</b> In this Physics topic students will explore: How do series and parallel circuits differ?</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to identify the differences between series and parallel in terms of current and p.d. behaviour.</p>	<p><b>Intent:</b> In this Biology topic students will explore: The nutrients does the human body require. • The structure and function of the digestive system • How lifestyle choices affect our body?</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to understand dietary needs including malnutrition. • Effects of drugs, smoking and exercise on the body</p>	<p><b>Intent:</b> This topic gives children the opportunity to find out about the properties of familiar everyday materials.</p> <p><b>Implementation:</b> In lessons using practical and written work, White boards and short tasks mainly teacher led.</p> <p><b>Impact:</b> learners should be able to describe how materials look, choose words that describe how materials feel, describe the simple physical properties of a variety of everyday materials by looking at and touching different materials and more.</p>	<p><b>Intent:</b> This topic gives children the opportunity to find out about the properties of waves and light waves</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to Use the terms transparent, translucent, and opaque correctly. • Describe the properties of different longitudinal and transverse waves.</p>	<p><b>Intent:</b> In this Biology topic students will explore: Where do plants get their energy from? • How do leaves work?</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to describe and explain photosynthesis.</p>



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# Long Term Planning for: Science

Year 9:

AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 1	SPRING TERM 2	SUMMER TERM 1	SUMMER TERM 2
<b>Health and disease</b>	<b>Forces and motion</b>	<b>Atoms and the periodic table</b>	<b>Adaptation and Variation</b>	<b>Rates of reaction</b>	<b>Start of KS4</b>
<p><b>Intent:</b> In this biology topic students explore ideas related to health and a healthy lifestyle and about ways in which we can treat diseases and symptoms of diseases</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to link the causes of ill health to risk factors and lifestyle and know the difference between antibiotics and painkillers</p>	<p><b>Intent:</b> To learn to identify gravity, friction, air and water resistance as well as carry out engaging and inspiring investigations to explore how these forces work in the real world.</p> <p><b>Implementation:</b> In lessons using practical and written work, White boards and short tasks mainly teacher led.</p> <p><b>Impact:</b> To understand the forces around us and how they impact our everyday lives</p>	<p><b>Intent:</b> In this Chemistry topic students will explore: The structure of the periodic table and how are elements arranged and grouped?</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to recognise The structure of the Periodic Table and The key properties of the alkali metals, halogens, and noble gases.</p>	<p><b>Intent:</b> In this biology topic students will explore: • How organisms are adapted to their environments</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to understand Different types of variation and why evolution occurs</p>	<p><b>Intent:</b> In this Chemistry topic students will explore: What are chemical reactions and how can they be useful?</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to describe what is meant by a chemical reaction. • How reaction rates affected by changing conditions</p>	<p><b>Intent:</b> Give students a head start on assignments to begin in KS4</p> <p><b>Implementation:</b> A mixture of theory-based exercises and practical tasks. Differentiation to meet individual needs through worksheets and scaffolding of practical work</p> <p><b>Impact:</b> To enable students to feel prepared for BTEC and give them extra time to finish</p>