

Year 8

Subject: Design and Technology

Unit of work & brief outline of what will be covered.	Key Objectives – what will students learn	Assessment
<p>Energy and Electronics <i>Design & Technical Knowledge Focus</i> Students will develop an understanding of input and output components in electronic circuits, before using these to produce and troubleshoot a product containing a circuit which includes sensors.</p> <p>Students will consider a wide range of energy sources, considering the social and environmental costs of these.</p>	<ul style="list-style-type: none"> • Understand how sensors can be used to detect heat, sounds, light and movement and in what these would be used • Understand and apply a range of planning tools when designing, considering cost and timescales. • Develop an understanding of products through life cycle analysis 	<p>Assessment is ongoing throughout the unit with a focus on two key assessment pieces; the manufacturing specification and practical work.</p>
<p>Catering for Need <i>Making & Technical Knowledge Focus</i> Students will develop a deeper understanding a healthy diet as depicted in The Eatwell Guide, adapting recipes to improve their nutritional value.</p> <p>Students will develop an awareness of how to store, prepare and cook food safely and hygienically using a broad range of skills to prepare a range of sweet and savoury dishes</p>	<ul style="list-style-type: none"> • Understand how to taste and cook a broader range of ingredients and healthy recipes, accounting for a range of needs, wants and values • Recognise a range of different dietary needs and how to adapt recipes to meet these needs • Recognise how to modify recipes to improve their nutritional values and improve their sensory features. • Know how to adapt and use their own recipes. • Develop an understanding of food provenance and how our food choices have an environmental impact. 	<p>Assessment is ongoing throughout the unit with a focus on two key assessment pieces; a redesign of a bread product considering nutrition and sensory values and sensory testing and evaluation.</p>
<p>Design for Sustainability <i>Design and Making Focus</i> Students will develop a broader understanding of the impacts that our manufacture, consumption and disposal of products has on the wider world</p> <p>Students will consider the impact of the textile industry before designing and making a product that aims to use waste material.</p>	<ul style="list-style-type: none"> • Understand and develop the knowledge to evaluate the positive and negative impacts that products can have on the wider world • Understand the properties of a range of materials and consider these when selecting materials for their own use • Know how to adjust sewing machines to produce a range of techniques both functional and decorative • Recognise the positive and negative impact that products can have on the wider world 	<p>Assessment is ongoing throughout the unit with a focus on students developed ideas and practical outcomes.</p>