

Subject: Year 7 DT	
In Year 7 Design and Technology curriculum, students will gain a comprehensive understanding of health and safety protocols through practical lessons and theoretical study. They will learn technical language relevant to their projects, enhancing their ability to articulate design concepts and processes effectively. The focus will be on integrating theory with hands-on experience, allowing students to demonstrate their knowledge through the creation of high-quality products that emphasise aesthetics, functionality, and material suitability. This year is dedicated to learning and developing new skills that will lay a strong foundation for their future work in Design and Technology.	
Product Design Soft toy	Food Technology
Acquire:	
- Describe the benefits of LED illumination and how LEDs have evolved over time linking to the consumer needs. - Identify hazards and preventions and understand the expectations in the classroom. - Can understand different sewing methods and make links to batch production. - Can identify a circuit and how CAD software is used to design. - Has an understanding of the H&S rules and is able to identify hazards and preventions. - Produce a clear star profile presenting results that provide feedback from peers and personal reflections	- Identify hygiene and safety risks when preparing and cooking food and explain the preventative measures - Explain what the Eatwell Guide is used for identify the main food groups - Identify the 5 nutrients and understand their role in the body. - Describe the benefits of eating seasonal food and understand the impact on the environment - Produce a clear star profile presenting results of a sensory analysis, using a wide range of adjectives to support your findings
Apply	Apply
- Can Identify and carry out a practical lesson with a high regard to H&S at all times - Is able to sew using the correct stitch to create a product that is functional - Apply concepts effectively - Can identify the different sewing techniques and their benefits - Can solder safely and create a circuit that is functional - Worked independently and was able to work as a team player - Created a template and identified a border to sew around - Able to stitch independently and plan in all parts to fit in safely - Created an aesthetically pleasing product that functions - Evaluated the project and identified improvements and areas for development - Can list the 6 concept words and link to different activities in the project	- Use the bridge and claw grip accurately - Work independently following a detailed pre-prepared time plan - A range of equipment used with confidence and independence, including safe use of the grill, oven and hob - Apply concepts effectively - Consistently produce high quality and well cooked products - Demonstrates a high level of skill with good knowledge of health, hygiene and safety - Consistently demonstrate effective time management. - Regularly use technical language to describe cooking processes and skills in detail. - Consistently adapt ingredients - Weigh and measure with precision and understand a range of methods and units of measurements
Vocabulary	Vocabulary

Tier 2 Words ● Evolve - To develop, change, and improve gradually over time. ● Expectation - A strong belief or standard about how something should be done. ● Reflections - Serious thought, consideration, or self-evaluation of your own work. ● Functional - Designed to be practical, useful, and work correctly for its purpose. ● Aesthetically - Relating to pure visual beauty, style, and physical appeal. ● Evaluate - To carefully judge the value, quality, or success of something. Tier 3 Words (Subject-Specific Concepts) ● Batch Production - A manufacturing method where a specific, limited number of identical items are made together. ● CAD Software - Computer-Aided Design tools used to digitally draw, model, and plan products. ● Applique - A textile technique where fabric shapes are sewn onto a background fabric to create a decorative design or pattern. ● Template / Pattern Piece - A flat paper or card profile used as a guide to trace and cut out fabric shapes accurately before stitching them together.	Tier 2 Words ● Preventative - Action taken to stop something unwanted or dangerous from happening. ● Seasonal - Available, fresh, or ready for harvest at a specific time of year. ● Independently - Acting, working, or thinking on your own without needing constant help. ● Consistently - Acting or performing in the same positive, reliable way over time. ● Adapt - To modify or change something to make it suitable for a new purpose or need. ● Precision - The quality of being strictly accurate, exact, and careful. Tier 3 Words (Subject-Specific Concepts) ● Eatwell Guide - A healthy eating model showing the correct proportions of food groups needed for a balanced diet. ● Nutrients - Essential chemical substances that your body needs to survive, grow, and function properly. ● Sensory Analysis - Using the human senses (taste, smell, touch, sight, hearing) to scientifically evaluate food products. ● Bridge and Claw - Specific, safe hand positions used to secure ingredients firmly while cutting with a knife.
Assessment	
Baseline assessment – multiple choice Questioning, Self and Peer assessment FAR Marking – theory and practical tasks End of project assessment – multiple choice	

Subject: Year 8 DT	
In Year 8 Design and Technology curriculum, students will develop on existing skills and gain a comprehensive understanding of health and safety protocols through practical lessons and theoretical study. They will learn technical language relevant to their projects, enhancing their ability to articulate design concepts and processes effectively. The focus will be on integrating theory with hands-on experience, allowing students to demonstrate their knowledge through the creation of high-quality products that emphasise aesthetics, functionality, and material suitability. This year is dedicated to learning and developing new skills that will lay a strong foundation for their future work in Design and Technology.	
Product Design	Food Technology
Acquire:	
- Has an understanding of the H&S rules and is able to identify hazards and preventions. - Can identify a range of components and explain their properties and characteristics. - Understand units and tolerances, how to convert units from cm to mm and vice versa independently. - Understand the influence designers have on the world and future trends. - Understand a range of tools and equipment as well as materials, making links to their characteristics and properties. - Create a star profile presenting results that provide feedback from peers and personal reflections, use a wide range of adjectives to support your findings.	- Understand the conditions in which bacteria need to grow and multiply and explain the control measures used when working with high risk foods. - List 3 food poisoning bacteria, their sources and symptoms - Explain how to make sustainable food choices when purchasing food - Understand heat transfer methods and the cooking techniques related to each. Carry out a sensory analysis and present clear findings using a star profile
Apply	
- Can Identify and carry out a practical lesson with a high regard to H&S at all times. - Is able to manipulate materials and components to create a high-quality final product. - Can assemble and finish a product that is functional - Worked independently and was able to work as a team player - Able to work independently and plan in all parts to fit in safely - Used the vernier calliper with a sound understanding of tolerance - Created an aesthetically pleasing product that functions independently - Evaluated the project and identified improvements and areas for development - Can list the 6 concept words and link to different activities in the project	- Demonstrates a high level of health, hygiene and safety, following the pre and post practical routine independently. - Work independently following a detailed pre-prepared time plan, explaining contingencies for a variety of steps - A range of equipment used with confidence and independence, including safe use of the grill, oven and hob - Consistently demonstrate effective time management. - Regularly use technical language to describe cooking processes and skills in detail. - Weigh and measure with precision and understand a range of methods and units of measurements - Consistently produce high challenge, accurately made products that demonstrate accurate levels of technical skill, adapting ingredients where applicable and independently judging when products are cooked
Vocabulary	
Tier 2 Analyse: Examine the truck components to understand their function. Precision: Making exact cuts and measurements during assembly.	Tier 2 Contingencies: Alternative plans made in case something goes wrong. Sustainable: Making choices that do not harm the environment.

● Accuracy: Matching the final truck closely to the original design specifications. ● Refine: Improving the surface finish through sanding and polishing. ● Standardise: Ensuring every part in the batch is identical. ● Modify: Changing the design slightly to personalize the final truck. Tier 3 (Technical Words) ● Batch Production: Manufacturing a specific number of identical wooden trucks together. ● One-off Production: Creating a single, unique, custom-made personalized truck. ● Risk Assessment: Identifying potential workshop hazards before starting construction. ● Control Measure: Action taken to reduce risks when using tools. ● Tolerances: The acceptable margin of error in wood measurements. ● Jig: A custom template used to guide tools for identical cuts.	● Analysis: Detailed examination of the elements or structure of something. ● Precision: The quality of being exact and accurate when measuring. ● Multiply: To rapidly increase in number or quantity. Tier 3 (Technical Words) ● Bacteria: Microscopic organisms that can cause food poisoning if uncontrolled. ● Heat Transfer: Methods by which heat moves, such as conduction, convection, or radiation. ● Sensory Analysis: Testing food using the senses, like taste, smell, and texture. ● Pre and Post Practical Routine: Specific hygiene steps taken before and after cooking.
Assessment	
Baseline assessment – multiple choice Questioning, Self and Peer assessment FAR Marking – theory and practical tasks End of project assessment – multiple choice End of year assessment (covers all curriculum areas)	

Subject: Year 9 DT	
In Year 9 Design and Technology curriculum, students will develop on existing skills with a keen focus on independence with an established understanding of health and safety protocols through practical lessons and theoretical study. They will learn technical language relevant to their projects, enhancing their ability to articulate design concepts and processes effectively. The focus will be on integrating theory with hands-on experience, allowing students to demonstrate their knowledge through the creation of high-quality products that emphasise aesthetics, functionality, and material suitability. This year is dedicated to learning and developing new skills that will lay a strong foundation for their future work in Design and Technology. Students will build on knowledge learnt from previous years and create an innovative product.	
Product Design - LED light	Food Technology
Acquire	

• Has an understanding of the H&S rules and is able to identify hazards and preventions. • Can identify a range of components and explain their properties and characteristics. • Understand units and tolerances, how to convert units from cm to mm and vice versa independently. • Understand how to solder safely and identify all of the components. • Understand a range of drawing techniques and is able to create an orthographic drawing and isometric drawing of a part of the lamp or the complete product. • Create a star profile presenting results that provide feedback from peers and personal reflections, use a wide range of adjectives to support your findings.	• State the critical food temperatures which are followed to demonstrate food safety • List 3 food common food allergies and 2 common intolerances, explain the definition of both • Understand a range of moral, medical and environmental diets people may choose to follow • Identify LBV and HBV Protein sources and show an understanding of protein complementation • Identify the three types of fats and give examples of each, explaining how our diets can be adapted to reduce fat intake.
Apply	
• Can Identify and carry out a practical lesson with a high regard to H&S at all times. • Is able to manipulate materials and components to create a high-quality final product. • Can assemble and finish a product that is functional • Worked independently and was able to work as a team player • Able to work independently and plan in all parts to fit in safely, solder effectively to develop a complete product • Used the vernier calliper with a sound understanding of tolerance • Created an aesthetically pleasing product that functions independently • Evaluated the project and identified improvements and areas for development • Can list the 6 concept words and link to different activities in the project • Identify tools and recall their names and use them safely and correctly to complete an activity with a successful outcome. • Create a diary of making explaining each step and issues overcome • State, describe and explain key points about a designer and link to own opinion • Evaluate and identify areas to modify and improve	• Safe, independent and precise use of a range of equipment • Consistently produce high challenge, high quality and extremely well finished products that demonstrate accurate levels of technical skill., independently judging when products are cooked • Demonstrates a high level of health, hygiene and safety, following the pre and post practical routine independently with a focus on avoiding cross contamination • Consistently demonstrate effective time management. and be able to help others. • Regularly use technical language to describe cooking processes and skills in great detail. • Consistently select and adapt ingredients based on secure knowledge and understanding of their nutritional properties. Plan, prepare and cook a dish for a special diet including contingencies for a variety of steps

Tier 2 Words (High-frequency academic vocabulary)

- **Precision:** The quality of being exact, accurate, and highly detailed in measurements or cuts.
- **Tolerance:** The allowable amount of variation or error in a measurement before a part fails to fit.
- **Analyse:** To examine something methodically and in detail to explain how it works or how to improve it.
- **Evaluate:** To judge or calculate the quality, value, or success of a finished product against specific criteria.
- **Standard:** A level of quality or attainment that is accepted as a norm or required baseline.
- **Consistent:** Uniform, regular, and staying the same throughout a batch or manufacturing process.

Tier 3 Words (Subject-specific domain vocabulary)

- **Soldering:** The process of joining electrical components together by melting a metal alloy over a heated joint.
- **CAD/CAM:** Computer-Aided Design and Computer-Aided Manufacturing; using software to design parts and control machinery like laser cutters.
- **Batch Production:** A manufacturing method where a specific, limited number of identical products are made at the same time using jigs or templates.
- **Filament:** The thermoplastic wire material fed into a 3D printer to be melted layer-by-layer into a solid object

Tier 2 Words

- **Precise:** Exact, accurate, and careful in execution.
- **Consistent:** Maintaining a high standard over time.
- **Contingency:** A backup plan for unexpected problems.
- **Adapt:** To modify ingredients for specific needs.
- **Independent:** Working reliably without needing constant supervision.
- **Analysis:** Detailed examination of food characteristics.

Tier 3 Words (Subject-specific domain vocabulary)

- **Cross-Contamination:** Transferring harmful bacteria between surfaces or food.
- **Protein Complementation:** Combining incomplete proteins to get all amino acids.
- **Denaturation:** Chemical structural changes in proteins from heat or acid.
- **Macronutrient:** Nutrients needed in large amounts, like fats and proteins.
- **Pathogen:** Micro-organisms like Salmonella that cause food poisoning.

Baseline assessment – multiple choice

Questioning, Self and Peer assessment

FAR Marking – theory and practical tasks

End of project assessment – multiple choice

End of year assessment (covers all curriculum areas)