

Y8 Design & Technology and Food, Nutrition and Preparation

	Autumn	Spring	Summer
	Students will study three out of the five topic areas during Year 8.		
Topics	<p>Food, Nutrition and Preparation <u>Explore:</u> Knowledge- Macronutrients/ Micronutrients and Food Groups. Impact of poor diet on health. Diet related diseases. Food Safety and controls. <u>Create:</u> following recipes eg. Chilli, Baked Chicken Goujons. Refine preparation/ cooking skills – use of knife skills. Enrobing. <u>Evaluate:</u> Identify strengths/ weaknesses of dishes. Do Nutritional/ Sensory Analysis.</p>	<p>Food, Nutrition and Preparation <u>Explore:</u> Knowledge- Macronutrients/ Micronutrients and Food Groups. Impact of poor diet on health. Diet related diseases. Food Safety and controls. <u>Create:</u> following recipes eg. Chilli, Baked Chicken Goujons. Refine preparation/ cooking skills – use of knife skills. Enrobing. <u>Evaluate:</u> Identify strengths/ weaknesses of dishes. Do Nutritional/ Sensory Analysis.</p>	<p>Food, Nutrition and Preparation <u>Explore:</u> Knowledge- Macronutrients/ Micronutrients and Food Groups. Impact of poor diet on health. Diet related diseases. Food Safety and controls. <u>Create:</u> following recipes eg. Chilli, Baked Chicken Goujons. Refine preparation/ cooking skills – use of knife skills. Enrobing. <u>Evaluate:</u> Identify strengths/ weaknesses of dishes. Do Nutritional/ Sensory Analysis.</p>
	<p>Design and Technology: Wooden Puzzle <u>Explore:</u> Analyse existing products. Make product for children, teenagers, adults. Design brief ‘make out of one piece of wood + interlocking design’. <u>Create:</u> Model ideas in cardboard, develop further by hand using exploded isometric drawings. Final Design CAD (2D Design). Skills: using a template, cutting wood, sanding, drilling, filing, sanding. <u>Evaluate:</u> Identify strengths/weaknesses. Reflect against Design Brief.</p>	<p>Design and Technology: Wooden Puzzle <u>Explore:</u> Analyse existing products. Make product for children, teenagers, adults. Design brief ‘make out of one piece of wood + interlocking design’. <u>Create:</u> Model ideas in cardboard, develop further by hand using exploded isometric drawings. Final Design CAD (2D Design). Skills: using a template, cutting wood, sanding, drilling, filing, sanding. <u>Evaluate:</u> Identify strengths/weaknesses. Reflect against Design Brief.</p>	<p>Design and Technology: Wooden Puzzle <u>Explore:</u> Analyse existing products. Make product for children, teenagers, adults. Design brief ‘make out of one piece of wood + interlocking design’. <u>Create:</u> Model ideas in cardboard, develop further by hand using exploded isometric drawings. Final Design CAD (2D Design). Skills: using a template, cutting wood, sanding, drilling, filing, sanding. <u>Evaluate:</u> Identify strengths/weaknesses. Reflect against Design Brief.</p>
	<p>Design and Technology: Mad-hatters Polyester Fleece Beanie <u>Explore:</u> Circus/ Fairground inspired beanie hat for friend/ relative. Include technique applique. Knowledge- natural/ synthetic fibres; SMES focus recycled plastic bottles into fleece fabric. Existing product analysis; research theme; write User Profile. <u>Create:</u> Hand drawn designs- different viewpoints, fully annotated. Skills: marking out template/tailors chalk; cutting out fabric shears; making paper templates for appliques; hand/machine sewing for construction. <u>Evaluate:</u> Identify strengths/ weaknesses. Test product.</p>	<p>Design and Technology: Mad-hatters Polyester Fleece Beanie <u>Explore:</u> Circus/ Fairground inspired beanie hat for friend/ relative. Include technique applique. Knowledge- natural/ synthetic fibres; SMES focus recycled plastic bottles into fleece fabric. Existing product analysis; research theme; write User Profile. <u>Create:</u> Hand drawn designs- different viewpoints, fully annotated. Skills: marking out template/tailors chalk; cutting out fabric shears; making paper templates for appliques; hand/machine sewing for construction. <u>Evaluate:</u> Identify strengths/ weaknesses. Test product.</p>	<p>Design and Technology: Mad-hatters Polyester Fleece Beanie <u>Explore:</u> Circus/ Fairground inspired beanie hat for friend/ relative. Include technique applique. Knowledge- natural/ synthetic fibres; SMES focus recycled plastic bottles into fleece fabric. Existing product analysis; research theme; write User Profile. <u>Create:</u> Hand drawn designs- different viewpoints, fully annotated. Skills: marking out template/tailors chalk; cutting out fabric shears; making paper templates for appliques; hand/machine sewing for construction. <u>Evaluate:</u> Identify strengths/ weaknesses. Test product.</p>
	<p>Design and Technology: Engineering, Glider Project <u>Explore:</u> Theory of flight, wing design, Forces and how they affect flight, STEM, STEM careers. Design constraints. <u>Create:</u> Team project. Wing design, Glider model, make in card/ corrugated board. Drawings in 3D. Design team logo to add to Final design (CAD). <u>Evaluate:</u> Iterative analysis. Test product. Data collection.</p>	<p>Design and Technology: Engineering, Glider Project <u>Explore:</u> Theory of flight, wing design, Forces and how they affect flight, STEM, STEM careers. Design constraints. <u>Create:</u> Team project. Wing design, Glider model, make in card/ corrugated board. Drawings in 3D. Design team logo to add to Final design (CAD). <u>Evaluate:</u> Iterative analysis. Test product. Data collection.</p>	<p>Design and Technology: Engineering, Glider Project <u>Explore:</u> Theory of flight, wing design, Forces and how they affect flight, STEM, STEM careers. Design constraints. <u>Create:</u> Team project. Wing design, Glider model, make in card/ corrugated board. Drawings in 3D. Design team logo to add to Final design (CAD). <u>Evaluate:</u> Iterative analysis. Test product. Data collection.</p>

	<p>Design and Technology: Sustainability Planter Project. <u>Explore:</u> Upcycling; what is Sustainability; the 6 R's; impact of plastic bottle disposal; climate change. Review isometric drawing and rendering skills. <u>Create:</u> Use recycled materials. Skills- Isometric drawings; 3D rendering; use of a craft knife and cutting mat; painting using acrylic paint. <u>Evaluate:</u> Identify strengths/ weaknesses. Test product</p>	<p>Design and Technology: Sustainability Planter Project. <u>Explore:</u> Upcycling; what is Sustainability; the 6 R's; impact of plastic bottle disposal; climate change. Review isometric drawing and rendering skills. <u>Create:</u> Use recycled materials. Skills- Isometric drawings; 3D rendering; use of a craft knife and cutting mat; painting using acrylic paint. <u>Evaluate:</u> Identify strengths/ weaknesses. Test product</p>	<p>Design and Technology: Sustainability Planter Project. <u>Explore:</u> Upcycling; what is Sustainability; the 6 R's; impact of plastic bottle disposal; climate change. Review isometric drawing and rendering skills. <u>Create:</u> Use recycled materials. Skills- Isometric drawings; 3D rendering; use of a craft knife and cutting mat; painting using acrylic paint. <u>Evaluate:</u> Identify strengths/ weaknesses. Test product</p>
	<p>Final Outcome and Book work Knowledge Checks End of Rotation Assessment</p>	<p>Final Outcome and Book work Knowledge Checks End of Rotation Assessment</p>	<p>Final Outcome and Book work Knowledge Checks End of Rotation Assessment</p>
<p>Arts Mark</p>	<p>Cultural Links Isometric Exploded Drawing skills Observational Drawings Designer Ideas CAD/CAM</p>	<p>Cultural Links Isometric Exploded Drawing skills Observational Drawings Designer Ideas CAD/CAM</p>	<p>Cultural Links Isometric Exploded Drawing skills Observational Drawings Designer Ideas CAD/CAM</p>
<p>Building on prior learning</p>	<p>Projects progress naturally with more challenging skills, knowledge and outcomes.</p>		
<p>Enrichment within the Curriculum</p>	<p>STEM Competitions and Invictus STEM days D&T ambassadors House Competition Chef of the week</p>		
<p>Extracurricular opportunities</p>	<p>Raf Glider Challenge F1 in Schools entry class Invictus Bake off Competition Upskilling Workshops</p>		
<p>Positive impacting on personal development (SMSC)</p>	<p>Design and Technology opens up a wide range of opportunities to explore a range of issues from the world around us. Students are encouraged to work together to complete their projects</p>		
<p>Preparing for the next stage of education</p>	<p>Skills and theory learnt will be applied in Year 9 to complete more challenging projects</p>		
<p>Ways to support your child's learning</p>	<p>Praise for effort rather than being 'clever' shows them that by working hard they can always improve Encourage your child to use Space to access homework set during rotations Create things at home, cook, sew, build and assemble</p>		
<p>Visits and trips Websites / books /papers / magazines TV/Films Blogs/ podcasts</p>	<p>Encourage your child to use their Doodle account to access homework set during rotations. Download Autodesk Inventor or SketchUp Make (free CAD downloads for students). Trips to interactive museums (e.g. THINK Tank) and look out for events such as 'The Big Bang'. Continue to develop design skills at home</p>		