

Design Technology Year 8 Curriculum Map



N.B. Pupils will follow the curriculum map in different sequence depending on which class they are in. They will complete 12 lessons of each material area per year of KS3. Due to rooming and staffing allocation, pupils may not always be in a specialised DT room.

YEAR 8	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Curriculum Content	<p>Product Design <u>Developing skills in Product Design.</u></p> <p>Composite – Passive amplifier Project. Pupils will design, make and evaluate a passive amplifier (a speaker that makes sound louder without using electricity). They will use CAD and CAM and learn about the 6 Rs and their roles and responsibilities as designers.</p> <p>Component 1: Intro and designer research. Pupils will receive an introduction to product design for this year. They will then complete a research page about De Stijl, the design movement that their passive amplifier will be based on. CCC</p> <p>Component 2: Product analysis. Pupils will look at and analyse a range of existing passive amplifiers to help them when designing their own. CCC</p> <p>Component 3: Design ideas. Pupils will re-cap isometric drawing from year 7 to design their own passive amplifiers in 3D. CCC</p> <p>Component 4: 2D Design – Front layer. Pupils will use 2D Design, a CAD programme to complete the front layer of their passive amplifier. CCC</p> <p>Component 5: Laser cutting and design improvements. Pupils will see CAD in action, with their 2D Designs being cut out on the laser cutter whilst adding annotations to their original designs using the points of ACCESS FM. CCC</p> <p>Component 6: Health and safety re-cap. Middle layer and drilling. Pupils will accurately mark out their middle layer of their amplifier and use the pillar drill to drill their sound hole using a forstener bit. CCC</p>	<p>Product Design <u>Developing skills in Product Design.</u></p> <p>Component 7: Middle layer and drilling continued. Pupils will accurately cut out their middle layer of their amplifier and use the pillar drill to drill their sound hole using a forstener bit. CCCC</p> <p>Component 8: Back layer and assembly. Pupils will shape the back layer of their passive amplifier to match the front and middle layers. They will glue and clamp the layers of their amplifier together. CCCC</p> <p>Component 9: Using the belt sander and decoration. Pupils will use the belt sander to smooth their final amplifier before using their design ideas to paint them in the style of De Stijl. CCC</p> <p>Component 10: Evaluation. Pupils will use ACCESS FM to evaluate their passive amplifiers, saying what went well and what they could do to improve. CCC</p> <p>Component 11: 6 R's Advert for amp. Pupils will learn about the 6 R's and how they could apply them in their role as designers. They will look at how the 6 R's could be applied to their final passive amplifier. CCC</p> <p>Component 12: AP1,2 or 3 or DIRT Time. CC</p>	<p>Textiles <u>Developing skills in Textiles.</u></p> <p>Composite – Intricate insects Micro: Bit pencil case project. In this project, students will develop their understanding of other designers work and how to obtain research which will help their ideas development. Students will be introduced to the laser cutter (CAM) and how this speeds up production and accuracy in industry. Students will refine their motor skills when using a variety of stitching methods to construct their decorative components. Students will be introduced to the sewing machine and will independently construct their case. Cross- curricular: in an ICT lesson, students will programme a light up electrical component that will be fitted inside the case.</p> <p>Component 1: H&S in workshop. Intro to design roles. Intro to project and subject specific vocabulary. Product analysis CC</p> <p>Component 2: Design development CC</p> <p>Component 3: Continued CC</p>	<p>Textiles <u>Developing skills in Textiles.</u></p> <p>Component 4: Reverse applique & surface design CC</p> <p>Component 5: Continue. Sewing machine practice CC</p> <p>Component 6: Manufacture CC</p> <p>Component 7: manufacture CC</p> <p>Component 8: manufacture CC</p> <p>Component 9: Evaluation and modifications. CC</p> <p>Component 10: Creating felt CC</p> <p>Component 11: As above CC</p> <p>Component 12: As above CC</p>	<p>Food <u>Developing skills in Food.</u></p> <p>Composite – Where does our food come from?</p> <p>Component 1: Food provenance. Pupils will learn about where our food comes from and is sourced. CCCC</p> <p>Component 2: Raspberry and lemon muffins. Pupils will weigh and measure out, portion and bake the muffins. They will evaluate them and suggest adaptations to the recipe at the end. CCCC</p> <p>Component 3: Flatbreads with tomato topping. Pupils will weigh and measure out, portion and fry the flatbreads. They will evaluate them and suggest adaptations to the recipe at the end. CCCC</p> <p>Component 4: Food labelling. Pupils will learn about food labelling and why it is important for consumers to have food labels. CCCC</p> <p>Component 5: Cheesy bread sticks. Pupils will weigh and measure out, knead, portion and bake the cheesy bread sticks. They will evaluate them and suggest adaptations to the recipe at the end. CCCC</p> <p>Component 6: Red lentil Ragu. Pupils will chop, dice and sauté the vegetables before creating a sauce with an alternative protein (lentils). They will evaluate and suggest adaptations to the recipe at the end. CCCC</p>	<p>Food <u>Developing skills in Food.</u></p> <p>Composite – Where does our food come from?</p> <p>Component 7: Food ethics. Pupils will learn about the ethics of food and why people may choose to follow different diets or only buy certain kinds of food. They will look at food standards currently in place in the UK that can be looked at to aid food and ingredient choice. CCCC</p> <p>Component 8: Shortcrust pastry. Pupils will weigh and measure out, mix and knead the shortcrust pastry. They will evaluate the pastry and suggest adaptations to the recipe at the end. CCCC</p> <p>Component 9: Mini cheese and onion quiches. Pupils will use their shortcrust pastry from last lesson to prepare their mini cheese and onion quiches. They will create the filling and bake the quiches during this lesson. CCCC</p> <p>Component 10: Food production. Pupils will learn about the different ways that food is produced in the UK on a large scale. CCCC</p> <p>Component 11: One pot veg chilli. Pupils will chop, dice and sauté the vegetables before creating a chilli sauce. They will evaluate and suggest adaptations to the recipe at the end. CCCC</p> <p>Component 12: Jam buns. Pupils will weigh and measure out their ingredients before using the rubbing in method and portioning their dough into individual jam buns. They will evaluate and suggest adaptations to the recipe at the end. CCCC</p>

Prior knowledge and skills (from previous year / key stage)	KS2 curriculum knowledge. Isometric drawing from Block bot project. Use of hand tools from making Block bots.	KS2 curriculum knowledge. Use of hand tools from making Block bots. Using ACCESS FM to write an evaluation.	Basic surface pattern Use of subject specific vocabulary Some experience of using machinery and sewing machines			
Core Knowledge Organiser content	Sustainability and the 6 R's Health and safety considerations Names of tools and machinery 3D Drawing and annotating designs ACCESS FM – Analysis and evaluation Accuracy and measuring	Sustainability and the 6 R's Health and safety considerations Names of tools and machinery 3D Drawing and annotating designs ACCESS FM – Analysis and evaluation Accuracy and measuring	Students understand the various roles within design Students understand how the skill base learned in DT can enhance their progress in other subjects Students learn to objectively analyse their progress by using feedback from others	Students understand the various roles within design Students understand how the skill base learned in DT can enhance their progress in other subjects Students learn to objectively analyse their progress by using feedback from others	Food provenance Food labelling Food packaging Local and seasonal foods Safe use of equipment Measuring and weighing out Transferring heat in different ways Ability to follow a recipe Time management Adapting recipes	Food ethics Fair trade Free range Safe use of equipment Measuring and weighing out Transferring heat in different ways Ability to follow a recipe Time management Adapting recipes
Assessment Objectives	Research into to a theme/designer. Designing and annotation. Safe and accurate use of tools and equipment.	Safe and accurate use of tools and equipment. Producing a high-quality finished product. Completing an evaluation. Understanding sustainability and the 6 R's.	To develop a design solution To work independently To act on support and guidance to refine and develop skills To objectively evaluate their own practice and project completion To understand how electronics are used in Fashion & textiles to improve the function of a product.	To develop a design solution To work independently To act on support and guidance to refine and develop skills To objectively evaluate their own practice and project completion To understand how electronics are used in Fashion & textiles to improve the function of a product.	Food provenance Food labelling Food packaging Local and seasonal foods Safe use of equipment Measuring and weighing out Transferring heat in different ways Ability to follow a recipe Time management Adapting recipes	Food ethics Fair trade Free range Safe use of equipment Measuring and weighing out Transferring heat in different ways Ability to follow a recipe Time management Adapting recipes
Vocabulary / Key Subject Terminology	Research Product analysis Annotation 2D Design/ CAD Tenon saw, Vice, Coping saw, File, Belt sander, Pillar drill.	Research Product analysis Annotation 2D Design/ CAD Tenon saw, Vice, Coping saw, File, Belt sander, Pillar drill. 6 R's of sustainability	Refine, evaluate, develop, annotate, amend	Refine, evaluate, develop, annotate, amend	Food provenance Food labelling Food packaging Local and seasonal foods Safe use of equipment Measuring and weighing out Transferring heat in different ways Ability to follow a recipe Time management Adapting recipes	Food ethics Fair trade Free range Safe use of equipment Measuring and weighing out Transferring heat in different ways Ability to follow a recipe Time management Adapting recipes
Assessment 1	As pupils complete each area of DT at a different time, pupils are assessed across all the areas for AP1. Pupils are given revision activities on class charts to help with the areas Of DT they may not have studied for a while		As pupils complete each area of DT at a different time, pupils are assessed across all the areas for AP1. Pupils are given revision activities on class charts to help with the areas Of DT they may not have studied for a while		As pupils complete each area of DT at a different time, pupils are assessed across all the areas for AP1. Pupils are given revision activities on class charts to help with the areas Of DT they may not have studied for a while	
Assessment 2	Pupils should have studied all 3 areas of DT. They will again be assessed across all three areas		Pupils should have studied all 3 areas of DT. They will again be assessed across all three areas		Pupils should have studied all 3 areas of DT. They will again be assessed across all three areas	

Cross Curricular Links with other Faculties	<u>Maths</u> – Measuring and marking out. Isometric drawing skills. 3D shapes. <u>Art</u> – Sketching and shading skills. <u>English</u> – Analysis and evaluation of products.	<u>Maths</u> – Measuring and marking out. Isometric drawing skills. 3D shapes. <u>Art</u> – Sketching and shading skills. <u>English</u> – Analysis and evaluation of products.	Art- surface pattern, placement of design Maths- spatial awareness, accurate measuring English- analysis, evaluative skills, vocabulary, spelling ICT- programming of the electronic component.	Art- surface pattern, placement of design Maths- spatial awareness, accurate measuring English- analysis, evaluative skills, vocabulary, spelling ICT- programming of the electronic component.	<u>Maths</u> – Measuring and weighing out. <u>Science</u> – Food science, nutrients and food groups. <u>English</u> – Written and verbal opinions of dishes.	<u>Maths</u> – Measuring and weighing out. <u>Science</u> – Food science, nutrients and food groups. <u>English</u> – Written and verbal opinions of dishes.
Extra-Curricular Offer	KS3 Eco club on Friday lunch time.	KS3 Eco club on Friday lunch time.	KS3 Eco club on Friday lunch time.	KS3 Eco club on Friday lunch time.	KS3 Eco club on Friday lunch time.	KS3 Eco club on Friday lunch time.
Time Allocation	<u>Product Design</u>	<u>1 lesson per week for 12 weeks of the year.</u>	<u>Textiles</u>	<u>1 lesson per week for 12 weeks of the year.</u>	<u>Food</u>	<u>1 lesson per week for 12 weeks of the year.</u>