

Year 9 Overview 2023-24 – D&T Each unit taught in a rotation 3 units contained in 6 double lessons, once a fortnight.

Project1 CAD/CAM - phone holder			
6x2hr lessons	Prior	Current	Future learning
	Lesson 1- Intro to CAD/CAM and drawing styles.		
	Some experience of 2D design with vinyl cutter Experience of drawing in oblique with rendering and annotation	Introducing students to CAD/CAM and how industry uses these for prototypes and production. World wide trade in designing and manufacturing products. Students introduced to isometric drawing to widen their 3D sketching. Jigs and standard forms of supply.	Used in GCSE To be able to select the best style of 3D drawings to use. An understanding of the way the commercial world works
	Lesson 2- Intro to 2D Design package and sketching.		
	Mixed range of skills on 2D Design	CAD drawings in 2D and formal 3 rd angle orthographic drawing.	Required for GCSE and a useful life skill to be able to read a working drawing
	Lesson 3- Using the laser cutter, DXF files cont. ideas		
	No prior knowledge	Enable students to manufacture there project through the laser cutter, learning how to send files and set the laser cutter up, including all H&S requirements. DXF files	Be able to set up and run the laser cutter independently for GCSE Aware of the dangers of using powerful lasers
	Lesson 4- workshop skills/ CAD/CAM skills		
	Workshop skills from yr 7&8 should allow independent use of fret saws and sanders. Jigs seen in yr 8 Forms of supply in yr 7	Combining their hand skills with CAM and standard processes. Use of jigs and standard tooling. Production methods. Quality control. Assembly of products, tolerance fitting.	All part of the skills bank which could be used at GCSE. Tolerance GCSE term.
	Lesson 5- Assembly/ Recording their learning making processes		
	Yr 8 electronics explanation sheet	Recording development of designs through screen shots.	Recording making for GCSE NEA tasks
	Lesson 6 – Orthographic drawing / Assessments		
	Drawing of house produced in lesson 2 In previous units	Producing orthographic working drawings from their completed product. Assessment with reflection and development on key aspects.	GCSE requirement to make working drawings of prototypes. Analysis and Evaluation tasks
<p>Good Their ideas show some imagination but remain 2D They have learnt the basic steps on how to use 2D design. They have been able to use the workshop tools safety with minimal intervention. Produced a prototype and can name the majority of the equipment and techniques they have learnt about.</p> <p>Better Their ideas show good imagination and are often multi layered or slotted. They understand the 2D design program and are able to alter and perfect their drawings. The prototype of their idea is well made showing a good degree of quality control. They can follow instructions to set up and use the laser cutter. They show confidence in using the equipment.</p> <p>Excellent Their ideas are highly imaginative and contain a number of parts which are not totally reliant on glue for construction. The use 2D Design very well and are able to assist their peers. They understand the process they have been through to help them produce a prototype of their best idea; it is very well made and often complex. Quality control has been applied. They can use the laser cutter with only a staff check and can assemble their prototype often explaining further developments they would like to make if not restricted by time.</p>			
Project Food Preparation and Nutrition - International Cuisines			
6 x 2hr lessons	Prior	Current	Links to future tasks
	Lesson 1 - Introduction to British dishes (English, Irish, Scottish and Welsh), Intro to some international cuisines (Italian, Moroccan, French, Spanish). PASTA PRACTICAL		
	Good use of systems in Food room. Recall of health and safety in room and personal hygiene. Use of general equipment. Using and storing high risk foods. Many Food preparation techniques from 7 & 8 - Bread making, Emulsion sauce, Tomato based sauce, Starch Based sauce, rubbing in method etc.	Discuss the digital book the definition of "cuisine". Introduce task to research a county. Complete an information sheet that shows your knowledge of the cuisine of that county. Work in teams to produce pasta a pasta dough, shape using a pasta maker and cook.	Knowledge linked NEA for GCSE. Life skills of knowing where food originates from. Pasta can be made as part of Rotary Chef Comp and GCSE NEA task.
	Lesson 2 – Risotto/Paella/Jambalaya Practical		
	Recall safe food storage, use of high risk foods, use of hob, simmering techniques	Students working on different practicals for the first time– demonstrate a combination of the products to explain most difficult skills. Emphasis on health and safety and independent working.	Life skills handling of high risk foods. Independent practical work.
	Lesson 3 – Mini Quiche Practical		
	Recall accurate measuring, chopping and peeling techniques, use of oven, using high risk foods, controlling temperatures.	Making Pastry for the first time. Understand importance of allowing the pastry to chill to relax the gluten. Introduce term – shortening. Rolling out for the first time. Explain the term Coagulation when making the filling.	Using and storing high risk foods (GCSE). Food science for GCSE – Shortening and coagulation.
	Lesson 4 – Bread Rolls Practical		
	Good use of systems in Food room. Recall of health and safety in room and personal hygiene. Recall of Naan bread in year 7,	Proving bread for the first time. Understand the importance of yeast and CO ₂ in bread production.	GCSE technical skills include making a bread dough, using yeast and understanding the bread making process. Understanding the functional and chemical properties of foods.
	Lesson 5 – Victoria Sandwich Cake Practical		
	Good use of systems in Food room. Recall of health and safety in room and personal hygiene. Use of general equipment including the oven.	Understanding aeration and the chemical reactions that take place in cake making. Using an electric whisk for the first time.	GCSE technical skills include understanding the functional and chemical properties of the ingredients on cakes to produce the correct texture/taste.
	Lesson 6 – Own Style Pizza Practical		
	Independent practical last lesson of KS3. Recall of health and safety in room and personal hygiene. Use of general equipment. Using and storing high risk foods.	Own choice independent practical to showcasing skills from year 7, 8 and 9. Photo of finished item, write up about what went well and what could be improved.	Assessed in line with GCSE criteria. Progress to GCSE Food Preparation and Nutrition.

	<p>Good Understand that cuisines are varied from across Britain and other countries. Help group make fresh Pasta dough. Dough is formed and shapes are cut. Safe and hygienic working practice has been followed. Vegetables chopped with some uniformity and accuracy. Rice is a little overcooked. Use a sharp knife, pan and equipment safely. Work with a high risk food correctly. Make a finished product.</p> <p>Better Understand food products from different cuisines including equipment and cooking methods used, eating patterns, presentation styles, traditional and modern variations of recipes. Prepare, combine and shape ingredients to make a dough, dough is formed with uniformity and accuracy. Pasta has been cooked correctly and handled well. Good quality products suitable for sale. Chop with uniformity and accuracy. Rice has been cooked correctly and handled well. Judge if meat is cooked correctly, work without much assistance from the teacher. Prepare and produce products safely, and hygienically with some time management and some consideration to the quality and presentation.</p> <p>Excellent Be able to <u>explain</u> food products from two different cuisines. Distinctive features and characteristics of cooking, equipment and cooking methods used, eating patterns, presentation styles, traditional and modern variations of recipes. Lead a group to make a pasta dough. Shape and finish using a pasta machine, then cook. Pasta has been prepared and cooked correctly. Safe and hygienic working practice has been followed. A high quality product suitable for sale. Rice has been cooked correctly. Prepare and produce practical safely, and hygienically with excellent time management and demonstrate quality and good presentation skills.</p>		
Project	Textiles – Cushion Cover using decorative textile techniques		
6 x 2hr lessons	Textiles – Cushion Cover using decorative textile techniques Prior	Current	Future Learning
	Lesson 1 Recall knowledge on how to set up and use a sewing machine from year 7 to experiment with stitches. Analyse a design brief in detail.		
	H&S in the textiles room. Setting up and threading a sewing machine. Using Straight stitch Names of machine parts and their function	Analysis a design Brief. Explore different lengths and widths of zig zag stitch.	Link to GCSE when pupils to analysis NEA context and create their own brief. Have now developed a wider understanding of the stitches accessible using a machine. Application of this on own GCSE projects
	Lesson 2 – Create a design idea for a prototype. Create an applique sample to help inform the design idea. Tie dye fabric for the prototype.		
	Setting up and threading a sewing machine. Recall tools and equipment. H&S. Recall design and annotation skills from previous units. Possible prior knowledge of tie dye from home or primary. Using zig zag stitch on a machine. Required for Applique	Create a design for the front of the cushion based on research and the client's wants and needs. Design will be fully annotated using the samples to show iterative design. A list of key words is used to help with the annotation. Create an applique sample. Simple shape provided to scaffold task. Tie Dyed fabric. Introduction to different types of dyes. Discussion over the environmental impact of the types of dyes.	Life skill – Developing creative thinking. Working within the restraints of a client's needs – Required at GCSE Understanding of environmental impact of everyday choices when buying clothing
	Lesson 3 – Create a set of manufacturing aids and start to cut out the fabric shapes using the manufacturing aids		
	Possible understanding of a manufacturing aid from prior units. Use of paper scissors and possible prior use of fabric scissors. Possible use of pattern pieces at KS2	Pupils to produce manufacturing aids to cut out shapes for the applique. Teacher to demonstrate how these manufacturing aids are to be made. Review of the sewing machine – setting up. Students use the manufacturing aids to cut out shapes of their fabric. Visual instructions available for students to use as a reference.	GCSE - More emphasis on independence when planning steps of making. Progress towards a more complex prototype at KS4
	Lesson 4 - Apply cut out applique design to the front of the cushion cover. Add further decorative techniques.		
	Possible use of pattern pieces at KS2 Setting up a sewing machine and threading up. Functions of a sewing machine. Use of tools and equipment. H&S. Possible use of hand stitching at KS2. Decorative machine stitching from KS3.	Students to complete surface decoration by independently selecting the correct tools and equipment.	Progress towards a more complex prototype - develop more complex construction and decorative techniques, encourage independent use of tools and equipment.
	Lesson 5 – Use an overlocking machine to neaten the edges of the cushion. Manufacture a hem for the backs of the cushion.		
	Use of tools and equipment. H&S. Use of an over locker from Y7.	Continue to develop understanding of when an over locker is used. Understand the use of a hem.	Independence in identifying the correct construction techniques for the intended proto type.
	Lesson 6 Construct fastening to the back of cushion. Assemble the prototype using a plain seam so it is complete. Complete an evaluation of the final prototype.		
	Setting up and threading sewing machine. Use of pins Use of iron. Evaluation skills.	Students to finish the assembly of their cushion by using a plain seam and overlocking the edges. From the diary of making, brief and client profile, students create a QC checklist to measure their prototype against it. This is then used for their evaluations and assessment, which will be more in depth than Y7 & 8.	More detailed evaluation at GCSE. Students apply QC checklist to NEA Practical outcomes. Apply understanding of construction skills learnt in Y9 to more complex outcomes at GCSE
	<p>Good You can understand the basic points in a design brief. You can recall how to set up a sewing machine independently. You can generate a creative design idea. You can independently set up a sewing machine. You can use your design to create a set of manufacturing aids. You can accurately use the over locker. You have fully constructed your cushion cover, using a plain seam. You can suggest what is good and bad about your prototype in your evaluation.</p> <p>Better You understand how analyse a design brief. You can sew a straight and zig zag stitch. You can generate and creative and imaginative design taking the needs and want of the client into consideration. You can apply a fabric shape using the decorative technique applique. You can create a set of accurate manufacturing aids. You can accurately cut out your manufacturing aid using paper scissors. You understand why you need to use the different construction techniques for you prototype. You have accurately fully constructed your cushion cover, using a plain seam. You can pick out aspects of your prototype to check against your quality control checklist.</p> <p>Excellent You analyse a design brief in detail ready to apply it to a design idea. You can experiment with length and width of stitching. You can generate a creative, imaginative and innovative design idea which follows your design brief. You can accurately sew around the edge of a fabric shape using the decorative technique applique. You understand how your manufacturing aids work together. You can accurately cut out your fabric using your manufacturing aid and scissors. You can independently manufacture 2 different construction techniques. You have constructed a high quality prototype with a fastening. You can give specific points and justify these against your QC checklist.</p>		