Year 8 Technology Curriculum

Year 8				
	Food	**Textiles**	**Product Design**	**Graphics**
	Developing Skills	**Protective fabric pouch for an electronic device**	**PD - Rollercoaster - Manufactured boards & Polymers**	**Graphics - Character Mirror (CAD/CAM)**
Content: What will students know	Students will continue to build upon the skills that they learnt in year 7, recapping key knife skills, health and safety, use of the oven and hob and how to prepare and cook meat and vegetables safely. They will know how to make more skillful dishes. They will begin to understand the function of the ingredients they are using and the science behind cooking.	Students will embed the importance of health and safety and be able to apply this when completing their work . Students will know the sources and origins of a range of well known fibres. They will know how to create a useful mood board and use it to inspire their own ideas. Students will know how to communicate an effective design idea, building on their skills from Y7. Learners will experiment with a range of different stencilling techniques to learn how to control and apply the medium effectively. Students should learn and know the importance of accuracy when using seam allowances. They will understand why we use templates and why they might be used in industry. Most learners will know the process of making a protective pouch for their electronic devices, using correct sequencing. Most should know how use the sewing machine correctly & safely. Learners should know what accuracy is and how to apply it to their work using a range of equipment & techniques.	Pupils will understand and recognise manufactured boards and some of their properties in particular MDF. Pupils will create an accurate template out of paper/card. They will understand why we use templates and why they might be used in industry. Students will know of and use pillar drill, scroll saws, coping saws, belt sander and bobbin sander to create a base for their rollercoaster out of MDF. Students will be aware of aluminium tube and know how to face off on the lathe. Pupils will learn about sources and origins of polymers before understanding the difference between thermo and thermosetting plastics.	The pupils will know how to sketch in proportion, and draw inspiration from past designs, to generate original concepts. They will also know that Development and production can be sped up by using CAD/CAM. They will know of laser cutting, and vacuum forming, and the function of packaging. They will know that we have a social and moral responsibility to use materials wisely and consider some wider aspects of recycling.
Skills: What will students be able to do	Students will be able to make a sauce using the reduction method, develop their accuracy when preparing vegetables, make a roux sauce, make and shape a bread dough, make and shape a scone dough, begin to understand more about how to present and finish their food to a higher standard. Be more confident in the kitchen.	Students will be able to tie dye fabric using a range of methods. They will be able to create their own stencil using scissors or scalpels safely. They will be able to use a sewing machine to sew a basic straight stitch, hopefully remembering to add a reverse stitch to secure. Learners will be able to construct their product, many with some assistance. Students will grow confidence in being able to pin fabrics together to temporarily secure them before machine sewing.	Use scroll saws, coping saws, belt sander and bobbin sander accurately, safely and independently. Setup and use the lathe to face off aluminium bar. They will understand the uses for wet and dry paper and the different grades. Students will be able to use the buff and polish machine for both their aluminium bars and acrylic coasters. Use the pillar drill independently accurately and safely. Students will know what is and be able to use a thread insert. They will be able to safely use heat guns to bend and shape their acrylic coasters. Understand how to get a good finish using acrylic paints.	Use the crating technique to sketch in proportion, develop and apply their illustration skills to control the laser cutter, and operate the vacuum forming and line bending machine. They will have knowledge of the die cutter, and how to set and print on card. Pupils will develop and use analytical skills to identify key design specification points.
Other: Literacy/ Numeracy/ Ethos	Understanding basic measuring and weighing and cooking times. Developing independence both when reading and following recipes with only guidance from the teacher. Promoting teamwork and communication skills to help others that are struggling with the recipe and when working to tidy up as the end of the lessons.	Numeracy is important in order to ensure an accurate seam allowance and a functioning product. Students will learn about seam allowances and how to measure and mark them out manually and by using the seam guides on the sewing machine base plate. Students will be exposed to technical / specialist vocabulary relating to the subject and tasks they carry out.	Students will understand how to calculate the area of squares, triangles and circles and then use this to calculate the waste area from their base design template.	The focus is for this unit is utilising and appreciating the speed and accuracy offered by CAD/CAM, and for developing illustrator skills which is a critical component for future use of CAD/CAM throughout the key stages. A thought towards materials used and the eco/social footprint.
Assessment:	2 practical assessments - macaroni cheese assesses sauce making skills and use of the hob and muffins assess their independence, creativity and presentation skills and use of the oven. Designing assessment to show how they can adapt a basic recipe, their use of colour, annotation and justification for choosing their product to make. End of rotation assessment. Short knowledge checks throughout rotation.	1) Design skills will be assessed based on creativity and their ability to use other's work to influence new and creative ideas. 2) Design presentation and annotation skills will be assessed based on key presentation criteria. 3) Student's learning will be assessed on their acquisition of key vocabulary and the uses of a range of tools. 4) Student's final products and practical skills will be assessed on the quality and complexity of their outcome.	Practical skills assessment, accuracy and precision of final product. Recall and describe tools and processes,with correct terminology and understanding. Accuracy of template and area calculations.	Practical skill assessment of both hand skills, creativity and CAD skills. Assessment of colour and composition, some subject knowledge assessment, accuracy and precision of final product. Understanding of material properties and user needs. Practical tessellation, and consideration to use of materials.