

	KS3 Curriculum Year 7				
	CURRICULUM INTENT? What does Technology help young people achieve at KS3? Why have you made these curriculum choices?				
	Year 7 KS3 Curriculum has been designed to be inspiring, rigorous and practical that encourages our students to learn to think and intervene creatively to solve problems, both as individuals and as members of a team. We also aim to make links to designs and designers throughout history, providing opportunities for children to critically reflect upon and evaluate their designs. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. This gives the learning purpose and relevance to the student encouraging them to develop life skills.				
	TERM BY TERM BREAKDOWN – Knowledge, acquired and skills developed:				
	Textiles	Materials/ Graphics	Food	CAD/CAM Engineering Addition Project if needed	Opportunities beyond the classroom

Wall Hangings from around the World

Knowledge:
 Introduction as to student’s understanding of what Textiles is and products that are designed and made for textiles. Students consider how textiles makes an impact on their lives.
 Introduction to health and safety in the textiles room.
 Introduction to equipment for textiles.
 Research into different countries of the World to interpret into stitch.
 Design specification that meets customer needs and design brief.
 Properties of Natural Fibres
 Identification of parts of the sewing machine.
 Introduction to use of templates for pinning and cutting fabric.

Key Skills:
 Introduction to Decorative Techniques including hand embroidery, fabric pens and embellishment.
 Threading up and use of the Sewing Machine.
 Sewing machine skills including controlled stitching and Machine Applique.
 Introduction to pinning and cutting fabric to use for a purpose.

**RACING CAR PROJECT
 CAR PRACTICAL – Main focussed task**

Knowledge:
 Introduction to health and safety in the workshop.
 Focus on hazards and precautions when using hand tools and machines. Risk assessment.
 Introduction to production planning and job sheet analysing for manufacturing.
 Working with timber: how to mark out, cut/shape, drill and sand timber using the pillar drill, Scroll Saw, Jack/smoothing plane, coping saw, Tenon saw and sanding disc.

Key Skills:
 Marking out materials, cutting shaping and deforming materials.
 Planning for manufacturing an artefact in accordance with supplied engineering drawings.
 Planning using industrial methods, production plan/job sheet and interpreting engineering drawings. Manufacturing parts as per engineering drawings using tools and machinery. Assembling manufactured parts. Applying finishing techniques

PRESENTATION BOX FOR CAR
Knowledge:
PAGE LAYOUT
Pupils use Techsoft V3 to create 1:1 drawing to form the packaging NET.
Pupils learn about vectoring and proportion, colour theory.
Pupils present and use BS 8888 to understand dimensions (prep for engineering course).
Pupils learn about the design process and the need for user opinions and how to modify designs as a result.
Rendering of the casing to GCSE/ pro standards to allow challenge.

PACKAGING DESIGN
Through the Car presentation box, pupils will learn about:
Packaging nets.
Papers and board.
Surface finishes and smart materials.
Model making skills- cutting, folding, and laminating.

Key Skills:
 CAD
 Planning and layout (hand drawn an making product)
 Accuracy (CAD)

Knowledge:
Food For Life Module 1
 Food groups and the main nutrient they provide, the function of fruits, vegetables and dairy products in a balanced diet.
 Personal hygiene
 Basic equipment and its use/safety
 Heat transfer

Key Skills:
 Weighing using digital scales, measuring liquids, how to use oven safely, reduction sauce, cook pasta, bridge and claw for fruit and vegetable preparation, rubbing in method, using a template to shape a dough, using a food processor, enrobing. Boiling, grilling, simmering, and baking.
 Evaluate food practical.
 Plan to make one dish
 Research information.
 Present information using more than one method

Recipes
 Pasta Salad – Boiling pasta and knife skills
 Fresh Fruit Salad – Knife skills
 Cheese on Toast – Using the Grill
 Apple Crumble – Rubbing in Method, using the Microwave & using the Oven
 Chicken Nuggets – Enrobing
 American Muffins – Melting Method
 Pizza – Reduction Sauce, Shallow Frying
 Chicken Fajitas – Marinating and Shallow Frying
 Raspberry Buns – Rubbing in Method and shaping dough

Knowledge:
Key Ring Project Design and Make
Introduction to health and safety in a computer room
 Designing products for oneself and for others (specific client brief)
 Design specification that meet design briefs
 Research techniques and the work of others: designers and brands
 Introduction of 2D and 3D CAD (Techsoft 2D & Solidworks)
 Introduction to CAM and 3D printing.
 Evaluating ideas to design brief and specification

Key Skills:
Analysing key information and research to answer a design brief
2D drawing skills, lines, circles, squares, text, offsetting, mirroring, and editing. 3D drawing skills extruding, revolving, adding text, extrude cutting. 3D printing

Year 7/8 cupcake competition

STEM club

		<i>Prototype making and use of crafting tools</i>			
Key Independent Learning Resources			GREAT READS		
<p>Online textbook Information sheets on how cooking methods effect nutritional value. Information sheets in booklets. British Nutrition Foundation website Resources on student drive. Sam Learning Technologystudent.com BBC bitesize Edexcel D&T Textiles Step by step of Embroidery stitches – leaflets and books GCSE Textiles guide Edexcel GCSE (9-1) Design and Technology Student Book (Edexcel GCSE Design and Technology (9-1))</p>			<p>Solidworks 2014 Parts 1 Basic tools (Paul Tram) Zen and the art of motorcycle maintenance Growing up digital Dan Tapscott Doing a Dyson James Dyson Ministry of Food, 5 Ingredients & Veg, Delicious Food Jamie Oliver Threads of Live: A History of the world through the eye of a needle. Claire Hunter The Golden Thread. How Fabric changed the world. Kassia St. Clair Sewing Machine Basics Sew Your Own Pet Pillows Bobby Dazzler Make your own Misfit Toy The Complete Book of Sewing by DK How to be a Fashion Designer (Careers for kids) by DK Packaging Design: Successful Product Branding from Concept to Shelf Book by Marianne Klimchuk and Sandra A. Krasovec What is Packaging Design? Book by Giles Calver Designing Brand Identity: An Essential Guide for the Whole Branding Team</p>		