

Curriculum Narrative-Year: 9 Author: H.Drewery Subject: Design and Technology Key Knowledge Key Skills Pupils will be able to Pupils will know **Key Threshold Concepts:** Subject Skills: • Develop, plan, and communicate ideas In KS3 our learners are taught to work with a wide range of materials such as wood, metal, plastic and • Work with tools, equipment, materials, and graphic materials. They will learn new practical skills to components to make quality Products support constructing and communicating their designs. Evaluate processes and products The skills which are taught are based around designing and making, they include: • Know and understand materials and components • Health and Safety rules when using equipment and machines in a workshop environment • An understanding of materials and their properties e Design Accurately measuring and marking out a wide range of materials Cutting and shaping of a varied range of materials, such as; wood, metal, plastics, card and paper • Evaluating existing and self-made products.

Subject Specific Knowledge and Sequencing: <u>KS3 all have 5 week rotations with</u> <u>Art, Tech, ICT, PSHE and Food</u>

Rotation 1:

Topic: Paper and Board

Key Concepts: Understand develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations Key Knowledge: looking into the work of others, 6 Graphic components tools and equipment, properties of paper and board, Printing Techniques, Paper and board finishes and components

Prerequisites and Spiral Teaching:

- Students will start year 9 with basic knowledge of wood, metals, plastic, paper and board and fabric.
- Students will have knowledge on a variety of different drawing techniques including isometric and 2d sketching.
- Students will understand the concept behind a practical and the order of the design cycle
- Building on previous learning from year 8 through basic drawing skills, practical skills including materials uses and properties and appropriate tools and equipment.
- In year 9 pupils will also build on evaluation skills, reflect and test different processes and techniques used for each material
- Work collaboratively with a designer or a client on a project



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Rotation 2:Topic:Introduction to the tools, equipment, processes and finishing techniques for wood, plastic and metal.Key Concepts:Softwoods and Hardwoods.Ferrous and non-ferrous, thermosetting and thermoplastics.(Test Pieces)Key Knowledge:Types of materials and uses, tools and equipment, Finishing techniques and quality checks.Key Knowledge:Types of wood, tools and equipment, finishing techniques, quality checks, evaluating and reflecting on skills. Pupils need to identify which tools and equipment's work well for certain materials, permanent and temporary fixings this is to help them choose the correct process and techniques for their own projects <i>If</i> they choose Technology at GCSE level.Homework: -Design a Moodboard, complete the properties for Paper and boardComplete a multiple choice test.	 Cross-Curricular Knowledge Links: English- Evaluating, Speaking and listening skills Maths- Measuring skills, isometric drawings (3d shapes) analysing data Science- Systems & Control Art/History- Design movements Citizenship- Communication skills/Teamwork Geography- Environmental impacts, Sustainability and recycling ICT- Use of Microsoft Office, Adobe Software
Reading Lists / Sources / Reading around the subject recommendations:	
 Kinetic Spreads-Robert Sabuda John Lewis CGP Design and Technology Revision guide and workbook D&T app for smartphones www.bbcbitesize.co.uk 	

- www.technologystudent.co.uk
- <u>www.ncfe.co.uk</u>
- <u>www.aqa.co.uk</u>