Home-School Learning Collaboration – D & T (PD)

Topics in this cycle:	Taught:	Year Group:
1. Origin, uses of wood & plastic. 2. Research Anthropometric and Ergonomics. 3. Create a factsheet on Hoodrich founder. 4. Design and make a model of a Hoodrich trainers 5. Evaluate the strengths and weaknesses of a product	Spring 2 2026	9

Key knowledge/concepts to be learnt ('Tell me about….')	Websites/blogs/YouTube links and further reading to deepen and consolidate learning
o **What are the different types of plastics their origin, uses and manufacturing processes?** Identify what is deforestation and its effects. o **Identify, spell and define Design and Technology specialist key terms e.g.** ACCESS-FMM, Thermoplastic, Acrylic, Net etc… o **Conduct a product analysis of a glasses using ACCESS FMM keywords.** Analyse existing products to find out more about their appearance, materials, size etc. o **How to draw ideas and develop them in 2D.** Know how to add colour and clear annotation of materials and methods/processes to be used. o **Knowing how to work with card to produce a Hoodrich trainers.** Https://youtu.be/7zz9z7gtkbg Use the correct tools and equipment safely and skilfully to make a Hoodrich trainers. o **Use (SWOM) analysis to identify strengths, weaknesses, client opinion and suggest modifications.**	www.technologystudent.com www.bitesize.co.uk Scroll saw use https://youtu.be/-nEACcG-ZtQ drill use https://youtu.be/fGbnim4GcAE How to make an trainers? https://youtu.be/nSOt-H2kxmM

Key vocabulary and definitions to be learnt		What will the assessment look like?
Investigate/Research	Carry out research or study into, study of materials and sources to establish facts and reach new conclusions.	**Project Booklet: HOODRICH trainers** Assessed on investigation, design, make and evaluate. **BASE test in the Autumn and Summer:** 50 minutes • Multiple choice • Short answer questions
Design	A plan or drawing produced to show the look and function or workings of a building, garment, or other object before it is made.	
Manufacture	To build or make	
Evaluate	To evaluate is defined as to judge the value or worth of someone or something.	

Recycling	It means to break down an item and to make something new from the materials.	• Extended writing/design task
Aesthetics	How well a product appeals to the sense as it relates to (colour, texture & form/geometry)	**Family Learning Opportunities**
Consumer	Who uses the product.	
Function	The use or purpose of a product	• Make a Hoodrich trainers' model from corrugated card or cereal box.
Cardboard	A material made from cellulose fibre (such as wood pulp) like paper but usually thicker.	
Environment	The impact will the product have on the natural environment	• Practice drawing/sketching in 2D & 3D trainers.
Design Specification	A list of criteria the product must meet to be successful	
Adhesive	Also known as glue, cement, mucilage, or paste, is any non-metallic substance applied to one or both surfaces of two separate items that binds them together and resists their separation.	https://youtu.be/xnR9g9cx0jE
Rivet	A short metal pin or bolt for holding together two plates of metal, its headless end being beaten out or pressed down when in place.	• Visit a trainer's store for e.g. JD or Sport Direct for inspiration.
Thermoplastic	Is a plastic that gets soft when heated and rehardening on cooling without appreciable change of properties.	
CAD CNC	Computer Aided Drawing Computer Numerical Control.	.
3d printing	3D printing, also known as additive manufacturing, is a method of creating a three-dimensional object layer-by-layer using a computer created design. 3D printing is an additive process whereby layers of material are built up to create a 3D part.	