

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



Topics in this cycle: 1. Origin, uses of wood & plastic. 2. Primary and secondary research 3. Design and make a Jigsaw puzzle and a coat hook. 4. Production plan 5. Product evaluation	Taught: Summer 1	Year Group: 7
Key knowledge/concepts to be learnt ('Tell me about...')		Websites/blogs/YouTube links and further reading to deepen and consolidate learning
<ul style="list-style-type: none"> • What are the different types of wood and plastics their origin and uses? Identify what is deforestation and its effects. • What is a net: the functions of a package and safety signs and symbols suitable for a package? • Identify, spell and define Design and Technology specialist key terms e.g. ACCESS-FMM, Thermoplastic, Acrylic etc... • How can I conduct a product analysis of a coat hook using ACCESS FMM keywords? Analyse existing products to find out more about their appearance, materials, size etc. • How to draw ideas and develop them in 2D/3D. Know how to add colour and clear annotation of materials and methods/ processes to be used. • How to create a step-by-step plan for making a product. Knowing how to work with wood and deform plastic. Use the correct tools and equipment with skill to make a jigsaw puzzle, package, and coat hook. • Carryout observation to identify possible risk and hazards. • Use (SWOM) analysis to identify strengths, weaknesses, client opinion and suggest modifications or a novelty product. 		<p> www.technologystudent.com www.bitesize.co.uk </p> <p> Scroll saw use https://youtu.be/-nEACcG-ZtQ drill use https://youtu.be/fGbnim4GcAE strip heater use https://youtu.be/c63KUw-xQEY </p>

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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 in order to establish facts and reach new conclusions.	Project Booklet: Jigsaw puzzle and Coat Hook Assessed on investigation, design, make and evaluate. End of Unit test: 40 minutes <ul style="list-style-type: none"> • Multiple choice • Short answer questions • Extended writing/design task 	
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.		
Aesthetics	How well a product appeals to the sense as it relates to (colour, texture & form/geometry)	Family Learning Opportunities Make a coat hook model from corrugated card or cereal box. Play with your child's jigsaw puzzle. Practice drawing/sketching in 2D & 3D (Perspective) animals, utensils, or furniture in your house. Kitchenware/utensils https://youtu.be/nv2Biwv86vg Animals https://youtu.be/IH3tSlfuh5o Furniture https://youtu.be/O4cK9G4q0mE Visit the zoo, Ikea, Design Museum or galleries.	
Consumer	Who uses the product.		
Function	The use or purpose of a product		
Environment	The impact will the product have on the natural environment		
Design Specification	A list of criteria the product must meet to be successful		
Net	It is a flat two-dimensional shape, which contains score lines and when is folded and glued together forms a three dimensional shape.		
Deforestation	the action of clearing a wide area of trees		
Thermoplastic	Is a plastic that gets soft when heated and rehardening on cooling without appreciable change of properties.		
Acrylic	Acrylic plastic is a strong, clear polymer used in a host of industries including, but not limited to automobiles, lighting fixtures and optical applications.		
Soldering	https://youtu.be/Q_gejiVECIE		
Wasting process	One that produces waste or unusable material either by cutting bits out or cutting bits off. Name the most common wasting processes. - Drilling. - Sawing. - Filing. - Sanding. - Planing. - Chiseling.		