

# Subject: Design and Technology Pencil Box Project

Year group: 8

Week beginning	Subject Topic	KS3 Curriculum Coverage	Key Learning points/Key Concepts	Independent/Home learning	Assessment	Resources	Retrieval practice
4/1/21	Lesson 1 Materials Knowledge	Knowledge about Natural timber, manmade boards and material properties.	<p>Understanding how knowing about the properties of a material allows us to choose the correct material for a product to function.</p> <p>Understand the differences between hardwoods, softwoods and manmade boards including their properties and some uses.</p> <p>Know why we chose pine and plywood to make the wooden pencil box.</p>		<p>Are students able to answer these questions:</p> <p><i>What is the name given to natural manufactured wood products?</i></p> <p><i>Why is timber recyclable, renewable and reusable?</i></p> <p><i>What are the two categories of natural timber?</i></p> <p><i>What type of trees do hardwood come from?</i></p> <p><i>Why are hardwood generally more expensive than Softwood?</i></p> <p><i>Can you name 4 different types of hardwood?</i></p> <p><i>What are the main differences between hardwoods and softwoods?</i></p> <p><i>Name two properties of Ash and one use.</i></p> <p><i>Name two properties of Beach and one use.</i></p> <p><i>Name two properties of Mahogany and one use.</i></p> <p><i>Name two properties of Oak and one use.</i></p> <p><i>Name two properties of Balsa and one use.</i></p> <p><i>What trees do softwood s come from?</i></p> <p><i>Why are softwoods cheaper than hardwood?</i></p> <p><i>Name a disadvantage of a softwood over a hardwood</i></p> <p><i>Why are softwoods more commonly used in the construction industry?</i></p> <p><i>Name two properties of Larch and one use and one disadvantage.</i></p> <p><i>Name two properties of Spruce and one use and one disadvantage.</i></p> <p><i>Name two properties of pine and one use and one disadvantage</i></p>	<p>Lesson 1 PowerPoint:</p> <p>Reading task and questions about Natural Timbers and man-made boards.</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY</a></p>	

	Lesson 2 Research	Research linked to user needs and wants.	<p>Know why we need to conduct analysis and research to be able to develop appropriate products.</p> <p>Know the differences between primary and secondary research.</p> <p>Be able to carry out Primary research</p> <p>Be able to use ACCSESS FM to carry out a product analysis.</p>		<p>Are Students able to answer these questions:</p> <p>Why do designers need to carry out research and analysis of existing products to help them design new products?</p> <p>What is the difference between primary and secondary research?</p> <p>Can you define Aesthetics?</p> <p>Can you define Function?</p>	<p>Lesson 2 PowerPoint:</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAOBJYMmb4I397NPFw?e=tuGVNY">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAOBJYMmb4I397NPFw?e=tuGVNY</a></p>	
11/1/21	Lessons 3/4 Making	Select from and use specialist tools, techniques, processes, equipment and machinery precisely,	<p>Understand how knowing a materials property can help you when working with it.</p> <p>Know the name of the tools used to make the joints in wood.</p> <p>Know how to use the tools safely</p> <p>Understand the importance of measuring accurately.</p> <p>Be able to follow a working drawing and then use a tri-square, Steel Rule to mark out the correct lines for the finger joint.</p> <p>Using a Tenon Saw, Bench Hook and Bench vice correctly cut out a finger joint accurately.</p>	<p>Volume of a Cylinder and cuboid worksheet. This is set as an assignment in Teams but you can also download the worksheet here:</p> <p><a href="https://egguckland.sharepoint.com/:w:/g/Technology/ESZDcbZTjNRDpQJjgGENUXwBhWluewoM-O-gbnQnUPknwA?e=JVE4vy">https://egguckland.sharepoint.com/:w:/g/Technology/ESZDcbZTjNRDpQJjgGENUXwBhWluewoM-O-gbnQnUPknwA?e=JVE4vy</a></p> <p>Upload finished worksheet in TEAMS.</p>	<p>Quiz on names of tools and processes throughout making including how to use them safely.</p> <p>Verbal feedback on techniques.</p>	<p>Lesson 3,4,5,6 PowerPoint:</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAOBJYMmb4I397NPFw?e=tuGVNY">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAOBJYMmb4I397NPFw?e=tuGVNY</a></p>	
18/1/21	Lessons 5/6 Making	Select from and use specialist tools, techniques, processes, equipment and machinery precisely,	<p>Understand how knowing a materials property can help you when working with it.</p> <p>Know the name of the tools used to make the joints in wood.</p> <p>Know how to use the tools safely</p> <p>Understand the importance of measuring accurately.</p> <p>Be able to follow a working drawing and then use a tri-square, Steel Rule to mark out the correct lines for the finger joint.</p> <p>Using a Tenon Saw, Bench Hook and Bench vice correctly cut out a finger joint accurately.</p>		<p>Upload picture of pencil box at this stage. Give class feedback.</p>	<p>Lesson 3,4,5,6 PowerPoint:</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAOBJYMmb4I397NPFw?e=tuGVNY">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAOBJYMmb4I397NPFw?e=tuGVNY</a></p>	
25/1/21	Lesson 7 Specification		<p>Understand why we use an iterative design process.</p> <p>Know the main parts of the iterative design process.</p> <p>Understand what a specification is and how we can use it in a iterative design process.</p>	<p>Produce 3 Flash cards to remember the knowledge you need to know about timber. One flash card about</p>	<p>What is iterative design and why do designer use it to develop new products?</p>	<p>Lesson 7 PowerPoint:</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-</a></p>	

	Lesson 8 Initial Ideas		<p>Know what user centred design (USD) is and how we use it to help us design things that ensure that users needs and wants are considered.</p> <p>Using the analysis (Users needs and wants) and the specification create imaginative design ideas.</p> <p>Annotate your drawing using ACSESS FM as a guide. Your drawing should clearly show how you have considered the user and the specification.</p> <p>Know how to develop your design by changing or combining different options.</p>	<p>Softwood one about Hardwoods and one about manmade boards. There is information in your Knowledge organiser that will help.</p> <p>To see how to make a proper Flash Card click here: <a href="https://www.bbc.co.uk/bitesize/articles/z6pv3k7">https://www.bbc.co.uk/bitesize/articles/z6pv3k7</a></p> <p>Upload your finished flash cards to assignments in TEAMS</p>	<p>Why do we use a specification throughout the design process?</p> <p>What us USD and why is it important for designers to use it to be able to make better products?</p> <p>Initial ideas reflect the design brief and specification.</p> <p>Students show that they have annotated their drawings with key points from the specification and their research.</p>	<p><a href="https://www.bbc.co.uk/bitesize/articles/z6pv3k7">dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY</a></p> <p>Lesson 8 PowerPoint:</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY</a></p>	
1/2/21	Lesson 9/10 Making		<p>Know what a good pencil box looks like so you are able to evaluate your design as you make it.</p> <p>Know how to use templates to create accurate shapes.</p> <p>Know how to use a scroll saw (if available) to safely cut out the shapes for your design.</p> <p>Know how to apply appropriate colour to your shapes and pencil box to realise your design ideas.</p>		<p>Quiz on names of tools and processes throughout making including how to use them safely.</p> <p>Verbal feedback on techniques</p>	<p>Lesson 9, 10, 11, 12 PowerPoint:</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY</a></p>	
8/2/21	Lesson 11/12 Making		<p>Know what a good pencil box looks like so you are able to evaluate your design as you make it.</p> <p>Know how to use templates to create accurate shapes.</p> <p>Know how to use a scroll saw (if available) to safely cut out the shapes for your design.</p> <p>Know how to apply appropriate colour to your shapes and pencil box to realise your design ideas.</p>		<p>Quiz on names of tools and processes throughout making including how to use them safely.</p> <p>Verbal feedback on techniques</p>	<p>Lesson 9,10,11,12 PowerPoint</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY</a></p>	
Extra If we have time	Lesson 13 Evaluation  Lesson 14 Assessment		<p>Know how to use your analysing skills to evaluate what you have done</p> <p>Know how to use the ACCSESS FM tool to help with analysing and evaluating</p>		<p>Upload picture of final product. Pass on class feedback to next teacher.</p> <p>Written Assessment.</p>	<p>Lesson 12 PowerPoint</p> <p><a href="https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY">https://egguckland.sharepoint.com/:f/g/Technology/Ess1s2ypl-dKu9kN4Ofnh9YBys5oYAoBJYMmb4I397NPFw?e=tuGVNY</a></p> <p>Assessment</p>	
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