

Our Curriculum Drivers

Identity &
Diversity

Curiosity

Life Skills

Environment

KS1	Project	Design	Make	Evaluate	Technical Vocabulary
EYFS					
Year 1		<p>Research boats used by adventurers such as Blackbeard and Sir Francis Drake. Compare similarities and differences between boats.</p> <p>Investigate suitable materials for a boats. Sketch and draw own design for a boat in groups.</p>	<p>Select and use appropriate tools. Select and use appropriate materials according to plan. Consider how to strengthen materials to ensure the boat does not sink.</p>	<p>Was your boat successful? How could you improve your boat? What would you change or improve about your design? Would your boat be successful if there was a weight on the boat? Did you have to change your design?</p>	<p>How can we make our boat stronger? How can we make our boat more stable? How can we make our boat even better? What can we add to our boat?</p>
	Design & Build a Boat				
Year 2	Term 1	<p>Research and understand the purpose of dams Look at case studies of famous dams Investigate suitable materials for a dam Sketch and draw design of dam for our river</p>	<p>Use appropriate materials to build a dam Consider appropriate tools to use to help process Consider logical steps to build and then place it in water or build directly in water</p>	<p>Did your dam work successfully? How did the materials perform? How could you improve your dam design? What if the river was larger?</p>	<p>What materials can be used to strengthen our dam design? How could it be reinforced? How could we make our dam stiffer to cope with water flow?</p>
	Engineering				

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KS2	Project	Design	Make	Evaluate	Technical Vocabulary
Year 3					
Year 4	Term 6	Research and understand the purpose of lighthouses Compare different designs and think about the design properties and features Investigate suitable materials for building a lighthouse Sketch and draw design for own lighthouse Plan the circuit and how you will get your lighthouse to work	Select from and use a range of tools and equipment to build own lighthouse according to design. Think about the functional properties and aesthetic qualities of materials and where they will be best used in building of lighthouse. Consider how to strengthen materials so that the lighthouse will be weather resistant.	Did your design work? Did your lighthouse withstand the weather conditions? Did your bulb light up? How could you improve your design?	Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
	Design and build a lighthouse				
Year 5	Term 4	Investigate toys with moving cam mechanisms. Investigate different types of cam mechanisms. Investigate ways of strengthening structures for a moving toy Design a moving toy with a cam mechanism. State the purpose and audience of their design. Design a moving toy with a cam mechanism. Describe how they will create their toy and what materials and tools they will need.	Follow a design to create a moving toy with a cam mechanism Follow a design to create a moving toy. Work safely with a variety of materials and tools. Identify areas of their toy that could be improved upon.	Evaluate a finished moving toy. • Can you suggest ways you could improve your product if you were to make it again? • Can you recognise ways in which you have been successful?	Learn that a cam mechanism is a linkage system which has a follower to convert rotary movement to linear movement
	Term 2	Children will understand the terms 'functional' and 'aesthetic'. Research and analyse existing products. Compare and contrast existing products. Plan their festive furnishing and produce an annotated diagram and a set of instructions explaining how this will be made e.g types of stitches/ fastening	Select from and use a range of components to build our furnishing. Whilst making, children will think about adjusting products where necessary to meet the brief. Think	Festive Furnishings – Children will produce a presentation drawing of their finished product Evaluating: Their own thoughts about their product. -Is there any changes you would make to your product? -Did you have to change your design? -Did your design fit your target market? -Was your original idea effective? -Did you successfully use a range of sewing techniques?	Understanding of the following vocabulary and their role in completing the brief: Sewing, needle, threack, tacking, running stitch, cross stitch, buttons, fastenings, textile, embroidery, fabric
Year 6	Festive Furnishes				