

DT (Materials and Structures) Long Term Curriculum Overview

Concept	EYFS	YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR	YEAR FIVE	YEAR 6
Content Material and Structure.	Use junk equipment and construction kits to build 3D constructions.	<p>Creating free standing structures.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Work accordingly to make cuts and holes.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Use joining rolling, or folding to make it stronger.</p>	<p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Work accordingly to make cuts and holes.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p>	<p>Measure carefully to avoid mistakes.</p> <p>Attempt to make products strong and stiff.</p> <p>Continue to work on products even if original didn't work.</p>	<p>Select materials carefully, considering intended use of product and appearance.</p> <p>Explain how the product meets the design criteria.</p> <p>Ensure product is strong and fit for purpose.</p> <p>Begin to reinforce and strengthen 3D frames.</p>	<p>Know how to strengthen 3D works.</p> <p>Select materials carefully, considering intended use of the product, the aesthetics and functionality.</p> <p>Explain how product meets design criteria.</p>
Why Here/Why now	Children in EYFS will begin to experiment building with different materials and choosing materials to recreate their own ideas following modelling by	Children will build on skills from EYFS where children constructed using readymade equipment. In KS1 children will learn how to build a structure and create a detailed plan from which they will follow.		Children will build on their skills learnt from KS1. Children will begin to evaluate their designs and discuss what they would change if they were to do their structure again.		By the end of KS2 children will have had experience of building structures not just for a purpose. Children will now make links between design technology and science by experimenting with how they can strengthen a structure using a variety of materials, shapes etc.	

	<p>an adult. They will start to use their surroundings to help them discuss and design their own models.</p>			
<p>Key Vocabulary</p>	<p>Plasticine. Ruler. Straws. Build. Make.</p>	<p>PVA Glue. Wire. Wood. 2D. 3D. Clay. Cut. Plan. Design. Product.</p>	<p>Tenon Saw. Vice. Wire Snippers. Screws. Nails. Accurate. Marking out. Joiner. Junior. Hacksaw. Motor. Pliers. Rotary Cutter. Safety Ruler. Screwdriver. Side cutter. Snips. Spanner. Stapler. Dowel. Gears. Glass paper. Sandpaper. Bench hook. Bradawl. Disassemble. Cutting mat. Drill.</p>	<p>Prototype.</p>

			<p>Drill bits. File. G clamp. Goggles. Safety glasses. Hammer. Hole punch. Compass. Pulley. Saw. Render. Analyse. Combine. Construct. Criteria. Evaluate. Health and Safety. Parameters. Requirements.</p>
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