



# St Andrew's C of E Maghull Knowledge Organiser

## Year 1 – Summer 2 – DT – Freestanding Structures



<p><b>Knowledge:</b></p> <p>I know how to make freestanding structures stronger, stiffer and more stable.</p> <p>I know and can use technical vocabulary relevant to this project.</p>	<p><b>Skills: I can...</b></p> <p><b>Designing</b></p> <p>I can generate ideas based on simple design criteria and my own experiences, explaining what I could make.</p> <p>I can develop, model and communicate my ideas through talking, mock-ups and drawings.</p> <p><b>Making</b></p> <p>I can plan by suggesting what to do next.</p> <p>I can select and use tools, skills and techniques, explaining my choices.</p> <p>I can select new and reclaimed materials and construction kits to build my structures.</p> <p>I can use simple finishing techniques suitable for the structure I am creating.</p> <p><b>Evaluating</b></p> <p>I can explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings.</p> <p>I can evaluate my product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.</p>	<p><b>Vocabulary:</b></p> <p>Freestanding structure – A structure that stands on its own foundation or base without attachment to anything else.</p> <p>2D shape names – circle, square, rectangle, triangle</p> <p>3D shape names - cube, cuboid, cylinder</p> <p>Cut – To divide into parts with a tool.</p> <p>Fold – To crease or bend something over so it covers part of itself.</p> <p>Join – To put, bring or fasten together.</p> <p>Weak – Likely to break under pressure.</p> <p>Strong – Not easy to break or damage.</p>	<p><b>Lesson Sequence:</b></p> <p><u>Lesson 1</u> - I can evaluate existing animal shelters.</p> <p><u>Lesson 2</u> – I can establish the design criteria for my animal shelter.</p> <p><u>Lesson 3</u> – I can generate ideas for my animal shelter.</p> <p><u>Lesson 4</u> – I can plan the making stage for my animal shelter.</p> <p><u>Lesson 5</u> – I can make my animal shelter.</p> <p><u>Lesson 6</u> – I can evaluate my finished animal shelter against the design criteria.</p>
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