

Our DT Curriculum gives children the opportunity to develop skills, knowledge and understanding through designing and making functional products for a range of different users. They learn about key inventions and designers. Children are encouraged to think creatively and produce innovative designs as they explore the designed and made world in which they live.



DT YEAR 4

Subject: DT
Unit: Structures – Chairs

Characteristics of an Effective Learner

- Courage
- Commitment
- Collaboration
- Creativity
- Curiosity

<p>Prior Learning:</p> <ul style="list-style-type: none"> - Year 1 - Building mock-up structures and shapes for their playground. - Year 1 - Exploring how structures can be made stronger and more stable. - Year 2 – Measuring and cutting wood with a hacksaw (1:1 supervision) - Year 2 – Joining wood using jinks corners - Year 3 - Learning to how to strengthen and stiffen cardboard structures when making board games. 	<p>Key Vocabulary taught in this unit:</p> <p>Structure, feature, stable, framework, struts, jinks, hacksaw, sanding, purpose, plastic, lightweight.</p>
<p>Intent: What do we want the children to know, be able to do by the time they complete this unit?</p> <p><u>Design</u> Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups / investigate and analyse a range of existing products. Research different chairs by looking at the materials used and the features they have. Design a strong and stable chair for a movie character to use on set. Children understand how to strengthen and reinforce a wooden framework (e.g. using strengthening struts, jinks, corners).</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. Draw a labelled design of a chair for their chosen character. Plan the order of work needed to make the chair.</p> <p><u>Make</u> Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately/ apply their understanding of how to strengthen, stiffen and reinforce more complex structure. Children cut wood with a hacksaw to 10mm accurately. Sand wood evenly to create a smooth finish. Select appropriate materials/components to decorate their chair appropriately.</p> <p><u>Evaluate</u> Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Children look at a range of existing chairs and evaluate their suitability for different purposes. They evaluate how well their finished chair meets the design brief. Children identify where the design brief has not been met and suggest a modification. They show where they have changed their design for the better. Children learn about the invention of plastic and how this facilitated the mass production of cheap, lightweight products.</p>	
<p>Impact / Outcome: What will the final product / result be? Design brief: Design and make a strong and stable chair to for a movie character to use on set.</p> <p>P4C Inquiry (where appropriate) – n/a</p>	

