

Year 3 Construct a product (Designing a party hat)

What I should know.

- some materials float.
- some materials are waterproof.
- there are different types of ship.
- Developed some cutting skills.

Vocabulary

- durable
- decorative
- Purpose
- plan
- design,.

Knowledge

Design

Some materials sink some float.

Design for a purpose.

Generate, develop, model and communicate their ideas through talking and drawing.

Make

How to cut.

How to join.

Evaluate

Be able to discuss the effectiveness of their design against simple criteria.

DT Skills

Designing

- Use knowledge of existing products to design functional product.

Making

- Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining .
- Build structures, exploring how they can be made stronger, stiffer and more stable.

Evaluating

- Explore and evaluate a range of existing products.
- Evaluate their ideas throughout and their products against original criteria.

Technical knowledge and understanding

- Explore and use cutting implements and joining methods.
- Know and use some technical vocabulary relevant to the project.



Working Toward Expected	Expected Standard	Exceeding Expected Standard
<p>Processes Chooses appropriate tools, equipment, techniques and materials from a wide range.</p>	<p>Processes Use knowledge of existing products to design his/her own functional product</p>	<p>Processes Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience</p>
<p>Processes Safely measure, mark out, cut and shape materials and components using a range of tools.</p>	<p>Processes Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes</p>	<p>Processes Create designs using exploded diagrams</p>
<p>Processes Evaluate and assess existing products and those that he/she has made using a design criteria.</p>	<p>Processes Safely measure, mark out, cut, assemble and join with some accuracy</p>	<p>Processes Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks</p>
<p>Processes Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable.</p>	<p>Processes Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them</p>	<p>Processes Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them</p>
<p>Processes Explore and use mechanisms eg levers, sliders, wheels and axles.</p>	<p>Processes Investigate and analyse existing products and those he/she has made, considering a wide range of factors</p>	<p>Processes Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user</p>
	<p>Processes Strengthen frames using diagonal struts</p>	<p>Processes Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas</p>
	<p>Processes Understand how mechanical systems such as levers and linkages or pneumatic systems create movement</p>	<p>Processes Understand and use electrical systems in products</p>