

# Year 3 Design a Mark Making Tool

## What I should know.

- Experience of using construction kits to build walls, towers and frameworks.
- Experience of using of basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card.
- Experience of different methods of joining card and paper.

## Vocabulary

Bristles, shaping, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, lettering, text, graphics, decision, evaluating, design brief design criteria, innovative, prototype

## Knowledge

### **Design**

Some materials are more rigid than others.

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.



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