

Year 6- Design and Technology

Year 6	
<p><u>Progression of Skills and Understandings:</u> Designing</p>	<ul style="list-style-type: none"> ✦ 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 ✦ Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. ✦ Use research and develop design criteria to design useful, practical and appealing products for a particular audience. ✦ Generate, develop, model and communicate their ideas through cross-sectional and exploded diagrams. ✦ Identify when it would be most beneficial to use computer-aided design and use confidently.
<p><u>Progression of Skills and Understandings:</u> Making and Technological Knowledge</p>	<p><u>Making</u></p> <ul style="list-style-type: none"> ✦ Select from, and use, a wider range of tools and equipment to perform practical tasks for example; cutting, shaping, joining and finishing, accurately. Select from, and use, a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities <p><u>Technical Knowledge</u></p> <ul style="list-style-type: none"> ✦ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. ✦ Understand, and use, mechanical systems in their products for example; gears, pulleys, cams, levers and linkages. ✦ Understand, and use, electrical systems in their products for example; series circuits incorporating switches, bulbs, buzzers and motors.
<p><u>Progression of Skills and Understandings:</u> Making and Technological Knowledge Materials and Components</p>	<ul style="list-style-type: none"> ✦ Use a craft knife, cutting mat and safety ruler under close supervision. ✦ Choose and use appropriate techniques to shape, join and finish a range of products. ✦ Refine the finish of products as required e.g. sanding. ✦ Discuss characteristics of materials, why they were chosen and which tools are the most appropriate to use on these materials as part of a product.
<p><u>Progression of Skills and Understandings:</u> Making and Technological Knowledge Construction Materials</p>	<ul style="list-style-type: none"> ✦ Use a bradawl safely to mark hole positions before drilling. ✦ Use a series circuit with components such as bulbs, buzzers, switches and motors as part of design, identifying how to change the brightness of bulbs; the loudness of buzzers, etc. according to purpose of design, e.g. to design traffic lights or a burglar alarm (links with Y6 Science- electricity). ✦ Incorporate mechanical devices into products, e.g. gears, pulleys, cams, levers and linkages. ✦ Select the materials, mechanisms and/or electrical systems to use to best suit the product. ✦ Control a range of models using ICT control programmes.
<p><u>Progression of Skills and Understandings:</u> Making and Technological Knowledge Textiles</p>	<ul style="list-style-type: none"> ✦ Choose joining techniques to meet the need of the task, for e.g. chain stitch, split stitch, or gluing. ✦ Create products using simple pattern pieces. ✦ Choose and use materials according to their qualities to suit the visual and physical needs of the product, e.g. soft on a child's blanket.
<p><u>Progression of Skills and Understandings:</u> Evaluating</p>	<ul style="list-style-type: none"> ✦ Investigate and analyse a range of existing products. ✦ Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. ✦ Understand how key events and individuals in design and technology have helped shape the world. ✦ Evaluate existing products for a specific purpose and identify where there might be a gap in the market. ✦ Use knowledge to design, make and evaluate their own product, taking on contributions from their peers. ✦ Understand how key events and individuals in design and technology have helped shape the world (this could link with History, e.g. a study of an aspect or theme in British history beyond 1066, e.g. Stephenson, Brunel, etc. (this could be in Year 5 or Year 6 or both).

Progression of Skills and
Understanding:
Cooking and Nutrition

- ⌘ Understand and apply the principles of a healthy and varied diet
- ⌘ Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- ⌘ Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed
- ⌘ To choose and prepare foods, taking into account their characteristics, for a particular purpose
- ⌘ Show that they are able to carry out a variety of baking and cooking techniques
- ⌘ Create, test and improve own recipes, including the cooking times, temperatures and methods
- ⌘ Explain the importance and impact of safe handling and storage of ingredients storage
- ⌘ Explore fair trade and/or fair price for product with commonly used foods, eg. milk and chocolate.