



Year 6: D&T

Autumn Materials and Textiles	Spring Electricals and Electronics	Summer Computing Cookery and Nutrition
D1, D2, D3, D4 M1, M2, M3, M4, M5	D1, D2, D3, D4 M1, M2, M6	D1, D2, D3, D4 M1, M2, M7 C1, C2, C3, C4, C5, C6

Designing and Evaluating	Making	Cookery and Nutrition <small>*Revisit and Recall opportunities</small>
D1 I can design with the user in mind, motivated by the service a product will offer (rather than simply for profit).	M1 Materials I can cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).	C1 I can discuss and understand how foods are processed, including using one ingredient to make another e.g. wheat into flour.
D2 I can use prototypes, cross-sectional diagrams, and computer aided designs to represent designs.	M2 Materials I show an understanding of the qualities of materials to choose appropriate tools to cut and shape (e.g. the nature of fabric may require sharper scissors than would be used to cut paper).	C2 I can apply my knowledge of the food groups to plan a balanced meal.
D3 I can combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.	M3 Textiles I can create objects (such as a cushion) that employ a seam allowance.	C3 I can understand the importance of correct storage and handling of ingredients (knowledge of micro-organisms).
D4 I can evaluate the design of products to suggest improvements to the user experience.	M4 Textiles I can join textiles with a combination of stitching techniques (e.g. back stitch/over stitch for seams and running/cross stitch to attach decoration).	C4 I can demonstrate a range of baking and cooking techniques.
	M5 Textiles I can use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).	C5 I can measure accurately all of the ingredients from a recipe.
	M6 Electricals and electronics I can create circuits using electronics kits that employ several components (such as LEDs, buzzers, motors, switches) with increasing confidence.	C6 I can create and refine recipes, including ingredients, methods, cooking times and temperatures.



M7 Computing I can write code to control and monitor models or products.

Year 6 coverage

Vocabulary	Vocabulary	Vocabulary
<p><u>Materials</u> measure, precision, refined finish,</p> <p><u>Textiles</u> qualities of material (tactile and visual), seam allowance, combination of stitching techniques (running, over, back, and cross).</p>	<p><u>Electricals and electronics</u> circuit, electronic kit, several components, wires, crocodile clips, battery, bulbs, motors, buzzers, LED's, buzzers, motors, switches, confidence, functionality</p>	<p><u>Computing</u> write code, monitor, observe, control, discuss, improve, model/product, software</p> <p><u>Cookery and Nutrition</u> processed, process names (e.g. milling to turn wheat into flour), ingredient, balanced meal/diet, storage, handling, micro-organisms, cooking and baking techniques (boil, poach, fry, steam, microwave, grill, toast, roast, bake) accuracy, recipe, refine</p>
<p><u>Designing and Evaluating:</u> service that the product offers, profit, prototypes, cross-sectional diagrams, computer aided-designs, combination of elements, justification, precision, critical evaluation, user experience Also include the names of designers studied</p>		
<p>I will know</p>	<p>I will know</p>	<p>I will know</p>



Materials

- That there are a range of materials and each one has its own set of qualities.
- The qualities of a material effects how well tools work on them e.g. the nature of fabric may require sharper scissors than would be used to cut paper.
- That the finish of a material can be refined with different tools.
- How to cut materials with precision.
- How to select and use appropriate tools to refine the finish of a material.
- How to select the most appropriate tool for the job based on the qualities of the material I have chosen.

Electricals and electronics

- That a circuit must be joined all the way round to work, a break in the circuit will stop the flow of electricity.
- The components that are needed to make different types of circuits.
- That a circuit can be made from an electronics kit.
- That an electronics kit includes components such as LED's, buzzers, motors, switches.
- How to build and test different types of circuits with increasing confidence.
- How to build a circuit using several of the different components from an electronics kit with increasing confidence, to create a functional product.

Computing

- That models can be controlled and monitored using computer software.
- The name of the software that I can use to control and monitor a model.
- That code can be written to control and monitor a model.
- How to write code to control and monitor a model.

Cookery and Nutrition

- How food is processed in different ways, to create different ingredients/products.
- How to use a range of ingredients from different food groups to plan a balanced meal.



Textiles

- That fabrics can be used to create layers of decoration, adding different visual and tactile textures to a product.
- That visual texture is referring to the way the decoration looks e.g. glossy, coarse, pitted etc.
- That tactile texture is referring to the way the decoration feels e.g. glossy, coarse, pitted.
- How to select the most appropriate material for the job based on the qualities of the material and how well they suit the intended purpose of the product e.g. soft decoration for comfort on a cushion.
- That without taking into consideration a seam allowance, the material that you cut to make a product may be too small.
- How to sew using a seam allowance.
- How to use a combination of stitches to join materials.
- How to use a combination of stitches to create/decorate a product.

- That it is important to correctly store and handle ingredients to prevent them from going off/spread of germs/micro-organisms (bacteria).
- That a micro-organism is a bacterium that can be found on raw foods.
- That the cooking process kills the bacterium making the food safe to eat.
- How to correctly store and handle ingredients to prevent the spread of micro-organisms.
- That there are different ways to cook foods (boil, poach, fry, steam, microwave, grill, toast, roast, bake).
- That there are different pieces of cookery equipment that can be used e.g. hob, oven, microwave, grill.
- How to use different cooking equipment to show a range of cooking and baking techniques.



Designing and Evaluating:

- That designs should be motivated by the service that the product will provide, not just by profit.
- How to design with the end user in mind to ensure that the product is successful.
- How to create designs that are motivated by the service that the product will provide.
- That designs can be represented in several way (prototypes, cross-sectional diagrams, computer aided designs).
- That a prototype is a first or preliminary version of a product.
- How to refine and represent designs using prototypes.
- That a cross-sectional diagram is a diagram that shows you both the inside and outside of a design.
- How to refine and represent designs using cross-sectional diagrams.
- That a computer aided design is design that has had the use of computers to create, modify and optimise it.
- How to refine and represent designs using computer aided designs software.
- How to look at a design critically and share my ideas, thoughts, and opinions.

- That when evaluating a design, the users experience should be considered.
- That 'user experience' is the overall experience that someone using the product has e.g. how easy or hard was it, did it do what the product was meant to etc.
- How to suggest improvements to the user experience of a product.