



Year 4: D&T

Designing and Evaluating	Making	Cookery and Nutrition <i>*Revisit and Recall Opportunities</i>
D1 I can design with purpose by identifying opportunities to design and justify my choices.	M1 Materials I can measure and mark out to the nearest mm	C1 I can follow a recipe.
D2 I can make products by working efficiently and with precision (such as by carefully selecting from a wide range of materials and tools.)	M2 Materials I can cut materials accurately and safely by selecting appropriate tools.	C2 I can prepare ingredients hygienically selecting and using appropriate utensils.
D3 I can refine work and techniques as work progresses, continually evaluating the product design.	M3 Materials I can apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).	C3 I can measure ingredients to the nearest gram.
D4 I can use software to design and represent product designs including labels.	M4 Materials I can select appropriate joining techniques.	C4 I can assemble and cook ingredients (controlling the temperature of the oven or hob if cooking).
D5 I can identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.	M5 Textiles I can select the most appropriate techniques to decorate textiles.	
D6 I can disassemble products to understand how they work.	M6 Textiles I can understand the need for a seam allowance.	
	M7 Textiles I can join textiles with appropriate stitching.	
	M8 Electricals and electronics I can create series circuits.	
	M9 Electricals and electronics I can create parallel circuits.	
	M10 Computing I can monitor models using software designed for this purpose.	
	M11 Computing I can control models using software designed for this purpose.	



Year 4 topic coverage

Autumn <i>Seen but not heard</i>	Spring1 Ashes to Ashes	Spring2 <i>Straight Ahead</i>	Summer <i>Running Wild</i>
D1, D2, D3, D5, D6 M8 M9	D1, D2, D3, D4 M1, M2, M3	D1, D2, D3 M4, M5, M6	D1, D2, D3, D4 M10 M11
Vocabulary	Vocabulary		Vocabulary
<p style="text-align: center;"><u>Designing and Evaluating:</u></p> <p>Design, purpose, identify, deconstruct, disassemble, understand how they work, design opportunities, justify, choice, product, efficiency, precision, carefully select, wide range, tools, scissors, ruler, tape measure, pens and pencils for marking, hammer, saw, pliers, junior hacksaw, bench hook, screw driver, drill, glue gun, craft knife, hole punch, stapler, materials, card, paper, fabric, string, ribbon, card board, tubes, boxes, cotton reels, wood, plastic, bottles, dowel, straws, wheels, nails, glue, tape, refine as work progresses, share, discuss, evaluate continually and end product design, identify, generate ideas from great designers, horticulturalist or pioneers names, improve, existing designs, own work (self), others work (peer), reason, choice, design using software, label, represent, show, product designs.</p> <p style="text-align: center;"><u>Electricals and electronics</u></p> <p>create, series, parallel, circuit, wires, crocodile clips, battery, bulbs, motors, buzzers.</p>	<p style="text-align: center;"><u>Designing and Evaluating:</u></p> <p>Design, purpose, identify, deconstruct, disassemble, understand how they work, design opportunities, justify, choice, product, efficiency, precision, carefully select, wide range, tools, scissors, ruler, tape measure, pens and pencils for marking, hammer, saw, pliers, junior hacksaw, bench hook, screw driver, drill, glue gun, craft knife, hole punch, stapler, materials, card, paper, fabric, string, ribbon, card board, tubes, boxes, cotton reels, wood, plastic, bottles, dowel, straws, wheels, nails, glue, tape, refine as work progresses, share, discuss, evaluate continually and end product design, identify, generate ideas from great designers, horticulturalist or pioneers names, improve, existing designs, own work (self), others work (peer), reason, choice, design using software, label, represent, show, product designs.</p> <p style="text-align: center;"><u>Materials</u></p> <p>measure, mark out, nearest, centimetre, millimetre, safely, cut, fold, shape, accuracy, range of techniques e.g. gluing, hinging, put together (combine) to strengthen, cuts in the perimeter e.g. slots or cut outs, select, appropriate, tools, materials, technique, tools, scissors, ruler, tape measure, pens and pencils for marking, hammer, saw, pliers, junior</p>		<p style="text-align: center;"><u>Designing and Evaluating:</u></p> <p>Design, purpose, identify, deconstruct, disassemble, understand how they work, design opportunities, justify, choice, product, efficiency, precision, carefully select, wide range, tools, scissors, ruler, tape measure, pens and pencils for marking, hammer, saw, pliers, junior hacksaw, bench hook, screw driver, drill, glue gun, craft knife, hole punch, stapler, materials, card, paper, fabric, string, ribbon, card board, tubes, boxes, cotton reels, wood, plastic, bottles, dowel, straws, wheels, nails, glue, tape, refine as work progresses, share, discuss, evaluate continually and end product design, identify, generate ideas from great designers, horticulturalist or pioneers names, improve, existing designs, own work (self), others work (peer), reason, choice, design using software, label, represent, show, product designs.</p> <p style="text-align: center;"><u>Computing</u></p> <p>monitor, observe, control, discuss, improve, model, software.</p>



	<p>hacksaw, bench hook, screw driver, drill, glue gun, craft knife, hole punch, stapler, materials, card, paper, fabric, string, ribbon, card board, tubes, boxes, cotton reels, wood, plastic, bottles, dowel, straws, wheels, nails, glue, tap</p> <p style="text-align: center;"><u>Textiles</u></p> <p>select, appropriate, technique, decorate, decorative materials, paint, pompoms, feathers, sequins, range of techniques, paint, print, sew, dye, join, stitch, seam and seam allowance.</p>	<p style="text-align: center;"><u>Cookery and Nutrition:</u></p> <p>Prepare, ingredients, names of ingredients, hygienically, select, use, appropriate, utensils, sterilise, knife, grater, peeler, pan, chopping board, fork, spoon, plate, blender, bowl, whisk, scales, electronic scales, jug, measuring cup, measure, nearest, gram, assemble, cook, control, temperature, microwave, oven, hob, stir, whisk, mix, chop, slice, cut, bake, blend, fry, grate, knead, peel, eat, variety, healthy, diet, important.</p>
I will know	I will know	I will know
<ul style="list-style-type: none"> • That products can have a design (planning stage) before they are made. • That designs are based around the intended purpose of the object/product. • How to create a design for a product that has a clear purpose. • How to identify opportunities to develop designs. • How to justify my choices. • That there are a range of materials that can be used to create an object/product. • That there are a range of tools that can be used to create an object/product. • How to say which materials I select from a range and justify my choices. • How to say which tools I select from a range and justify my choices. • How to work efficiently and with precision by making the most appropriate selections of tools and 	<ul style="list-style-type: none"> • That products can have a design (planning stage) before they are made. • That designs are based around the intended purpose of the object/product. • How to create a design for a product that has a clear purpose. • How to identify opportunities to develop designs. • How to justify my choices. • That there are a range of materials that can be used to create an object/product. • That there are a range of tools that can be used to create an object/product. • How to say which materials I select from a range and justify my choices. • How to say which tools I select from a range and justify my choices. • How to work efficiently and with precision by making the most appropriate selections of tools 	<ul style="list-style-type: none"> • That products can have a design (planning stage) before they are made. • That designs are based around the intended purpose of the object/product. • How to create a design for a product that has a clear purpose. • How to identify opportunities to develop designs. • How to justify my choices. • That there are a range of materials that can be used to create an object/product. • That there are a range of tools that can be used to create an object/product. • How to say which materials I select from a range and justify my choices. • How to say which tools I select from a range and justify my choices. • How to work efficiently and with precision by making the most appropriate selections of tools



materials at the beginning of the process (during the design stage).

- That I can look at and discuss my own and others current designs with some criticality.
- How to say/give my suggestions for improvements to my own and others current designs.
- That refine means to change and improve my ideas and designs as work progresses.
- That designs can change throughout the building process.
- How to adapt my designs as I make.
- That I can evaluate my work continuously throughout the process to say what I am happy with and what I may change if I were to make the product again.
- How to evaluate my own product with support (peer/self).

D5 –

- That there are many great designers in the world, including pioneers in horticultural techniques.
- The name and works of some great designers, including pioneers in horticultural techniques.
- How to use work and ideas from great designers to generate ideas for my own designs, including pioneers in horticultural techniques.

D6

- That products can be taken apart (disassembled).
- That by disassembling a product I can investigate how it works.
- How to disassemble a product to investigate how it works.

and materials at the beginning of the process (during the design stage).

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- That designs can change throughout the building process.
- How to adapt my designs as I make.
- That I can evaluate my work continuously throughout the process to say what I am happy with and what I may change if I were to make the product again.
- How to evaluate my own product with support (peer/self).

D4 -

- That designs, including the use of labels, can be made on a computer using software.
- That representations of the final product, including the use of labels, can be made on a computer using software.
- The name of the software that I can use to design and represent a product.
- How to design a product, including the use of labels, using computer software.
- How to represent a product, including the use of labels, using computer software.

and materials at the beginning of the process (during the design stage).

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- How to say/give my suggestions for improvements to my own and others current designs.
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- How to evaluate my own product with support (peer/self).

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- That designs, including the use of labels, can be made on a computer using software.
- That representations of the final product, including the use of labels, can be made on a computer using software.
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- How to design a product, including the use of labels, using computer software.
- How to represent a product, including the use of labels, using computer software.



Electricals and electronics

- That a series circuit is one that has more than one resistor (light bulbs), but only one path through which the electricity flows.
- 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 a series circuit.
- How to build and test a series circuit.
- That a parallel circuit is one that has more than one resistor (light bulbs, buzzer etc), and more than one path (usually two) through which the electricity flows.
- The components that are needed to make a parallel circuit.
- How to build and test a parallel circuit.

- How to evaluate my own product with some support (peer/self).

Materials

- That a mm is a unit of measurement.
- That a mm can be measured using a ruler/tape measure.
- How to use a ruler/tape measure to measure to the nearest mm.
- That I can mark fabric to show where I want to cut.
- How to mark fabric.
- That materials can be cut and shaped in different ways by different tools.
- How to select the most appropriate tool for the job I am trying to complete.
- That the different tools for cutting and shaping give different finishes.
- How to use the tools to cut and shape material accurately.
- How to use the tools safely when cutting and shaping material.
- That cuts to create slots or cut-outs can be made within the perimeter of the material.
- How to cut to create slots or cut-outs within the perimeter of the material.
- That materials can be joined in different ways (gluing, stitching etc).
- How to choose the most appropriate method of joining materials in the context of the product that I am making.

Computing

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

Cookery and Nutrition

- That a recipe is a set of instructions to follow when cooking.
- That the recipe will tell me what is needed to make the meal.
- That the recipe will tell me step by step how to prepare and cook the meal.
- How to follow a recipe.
- That ingredients can be prepared in different ways using different utensils including a knife, peeler, and grater.
- How to prepare ingredients using a knife, peeler, and grater.
- How to select the most appropriate tool to prepare ingredients for the meal that I am making.



	<p><u>Textiles</u></p> <ul style="list-style-type: none">• That when working with fabric it is known as textiles.• That textiles can be coloured and decorated in a range of ways using different mediums.• How to decorate textiles using different mediums.• How to select the most appropriate technique to apply decorations to fabrics.• That textiles can be joined by stitching them together.• How to stitch materials together.• How to select the most appropriate method of stitching to join the materials together with increasing accuracy and neat finish.• That a seam allowance is the area between the edge of the fabric and the stitching line when joining two pieces of material together.• That when sewing a product that requires a seam, the seam allowance needs to be considered so that there is extra material that can be used to join the materials together.• That without taking into consideration a seam allowance, the material that you cut to make a product may be too small. • How to evaluate my own product with some support (peer/self).	<ul style="list-style-type: none">• That grams are a unit of measurement.• That I can measure or weigh ingredients to the nearest gram.• That I can use electronic scales, or analogue scales to weigh my ingredients.• How to weigh ingredients to the nearest gram using electronic scales or analogue scales accurately.• That some food can be eaten raw (without cooking) and some food cannot.• That food that is raw still needs to be prepared and served as a meal.• How to assemble a cold meal that does not require cooking e.g. salad.• How to assemble and cook a simple meal that does require cooking.• How to use simple cooking equipment such as the microwave.• That there are different pieces of equipment that I can use to cook food.• The names of the equipment that I can use to cook food.• How to assemble and cook a meal that does require cooking.• How to use cooking equipment such as the microwave, hob, or oven.• How to control the temperature of the hob/oven when being used. • How to evaluate my own product with some support (peer/self).
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