

## Year 5 Design Technology

Steps to knowing							End Point statement
What is a frame structure and what are their purpose? What examples can I find locally and around the world? Consider focusing on the work of a renowned designer.	How have they been constructed and what strengthening techniques have been used? Which materials have been chosen, why? How effectively do they meet the needs of their users?	How can I make the strongest 2D framework? How can frameworks be reinforced or strengthened when using 2D frames to make 3D frames? How can I use the appropriate tools and techniques to cut different materials (including wood)?	How can I create a design specification for my product, using prior learning, considering time, resources and cost? How can I discuss, record and present my ideas including cross sectional diagrams, annotated sketches (and prototypes)?	How can I justify my choices of materials according to function and aesthetics? How can I make my product in the right order thinking about the skills, tools and techniques I need?	How can I select the most appropriate tools? Have I used materials and techniques competently and accurately to meet my original design?	How can I test my finished product? Does my product meet the design specification? What are its strengths and areas for development?	Structures - Design, make and evaluate a purposeful, strong and stable 3D framed structure. Understand how to use a range of joining techniques appropriate to the materials and structure.
What is an electrical sensor (or light dependent resistor) and what part do they play	How have these products been designed and constructed? How and why is a computer control program used to	How can I measure, mark, cut, shape and join materials securely and finish my work well?	How can I use my research and knowledge to create an innovative design specification for	How can I create a step-by-step plan that I should take to construct my product? How can I select the most	Does my computer control program automatically respond to changes in the environment?	How can I test my finished product? Does my product meet the design specification? What are its strengths and	Electrical systems - Design, make and evaluate a purposeful product with an integrated electrical system. Use computer control systems in the product to program, monitor and control.



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in an electrical	operate the	How can I use the	my product,	appropriate tools,	What changes do	areas for		
system?	product?	appropriate tools	considering the	equipment and	I need to make if	development?		
What examples of products that respond to changes in their environment can I find in a local or global setting? Consider researching the work of a famous inventor, eg: Thomas Edison.	What input devices and output devices have been used? What types of circuits have been used (link to science learning) and what difference does that make?	and equipment to make secure electrical connections? How should I write my control program to include inputs, outputs and decision making?	purpose and needs of the intended user? How can I record my ideas and design decisions through annotated sketches and detailed circuit diagrams?	materials that I will need?	the product is not fulfilling my design specification?			
What is meant by seasonal produce? What is meant by the source of a product? Do particular products use locally sourced, seasonal or	What are the key ingredients needed to make a particular product? Where and how have they been produced? <i>Include the work</i> of a renowned chef who	How do I measure out, cut, shape and combine ingredients? <i>e.g.</i> <i>knead, beat, rub</i> <i>and mix</i> <i>ingredients.</i> How can I follow a recipe effectively and safely, including the use of a heat source?	How can we make a design brief and design specification for the purpose and user that celebrates seasonal produce? How can I show an innovated idea that celebrates seasonal produce	How can I show a clear plan for the steps, ingredients, utensils and equipment needed?	Can I select the utensils and equipment correctly and measure and prepare the ingredients to make my product?	Does my product meet the design brief and design specification? How can I include the views of others? Is there anything I might do differently next time?	Food - Design, make and evaluate a food product which celebrates seasonality. Demonstrate knowledge of how to use utensils (including heat sources) to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products.	



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organic	promotes		and will meet the		e.g. Pizzas with toppings
ingredients?	seasonality.		design		including produce grown
			specification,		at school/locally.
			including		
			annotated		
			sketches?		

Vocabulary

Design specification, prototype, annotated sketch, innovation, research, functional

reed switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), USB cable, wire, parallel circuit yeast, dough, bran, flour, wholemeal,

unleavened, baking soda, spice, herbs, fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, gluten, dairy, allergy, intolerance, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out

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