KS1 National Curriculum for Design and Technology

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].When designing and making, pupils should be taught to:

Design

- ♣ design purposeful, functional, appealing products for themselves and other users based on design criteria
- ♣ generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

- ♣ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- ♣ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- ♣ explore and evaluate a range of existing products
- ♣ evaluate their ideas and products against design criteria Technical knowledge
- ♣ build structures, exploring how they can be made stronger, stiffer and more stable
- ♣ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Technical knowledge

- ♣ build structures, exploring how they can be made stronger, stiffer and more stable
- ♣ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

- ♣ use the basic principles of a healthy and varied diet to prepare dishes
- ♣ understand where food comes from.

Y1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		Know how to make levers and sliders and	Making bread- vocabulary/skill Sifting/mixing/kneading			Structures - stability and strength- playgrounds.

		how they could be used to enhance a product. Lego available in lessons and during continuous provision. Scissor skills-know how to hold scissors correctly in one hand and cut away from themselves. Know how to turn the paper to cut along different shaped lines.	Know where each of the ingredients for bread comes from.			Look at real playground equipment and know which shapes make the structures stable and strong.
Y2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		Sewing a Christmas decoration Know that different needles will pierce different thicknesses of fabric. To know different ways to attach decorations to their ornament. To know how to join 2 pieces of fabric by using a running stitch.			Design and make a rescue vehicle for the Great Fire of London. Know how an axle works and identify axles on toys and models. Know why you would use an axle.	Making pizza Cooking and nutrition As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils. Pupils should be taught to: Know the different food groups and some of the foods that are in them.

						Know where the ingredients they are putting on their pizza have come from.

KS2 National Curriculum for Design and Technology

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].When designing and making, pupils should be taught to:

Design

- ♣ 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

Make

- ♣ 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

Evaluate

- ♣ 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

Technical knowledge

- ♣ 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]
- ♣ apply their understanding of computing to program, monitor and control their products.

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils should be taught to:

- ♣ 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.

Y3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Sandwiches-science link Spreading/chopping/ Grating Know how to chop food safely with hands in a bridge shape.			Packaging-linked to the BFG story. Know why companies use packaging and name the different materials used. Know the functional properties of each material.		Moving rainforest animal.
Y4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		Pop up books-mechanisms Cooking Welsh rarebit. Chopping/grating/ mixing/spreading		Textiles – sewing money containers		Circuits – security lights
Y5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		African masks using mod roc. Finished using a variety of painting skills.	Bread Know what it is that makes bread rise.	Cheese scones Sifting/mixing/rubbing/ Grating	Musical instruments Investigate/design/ make/evaluate	CAMS-explore and use mechanisms

			Know there are different kinds of bread and which ingredients are needs for each kind.	Know about seasonality of foods grown across Britain.	percussion instruments.	
Y6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Shelters-structures Know how to use a hacksaw safely.	Great British food-wartime recipes. Making pastry Sifting/mixing/rubbing Chopping/rolling/peeling				Computer controlled models.