



## KS2 GOALS

### 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 and 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.

### Food technology

- 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.

	TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
YEAR 3			Mechanisms: Pneumatic Toys	Food: Eating Seasonally		Structures: Castles
YEAR 4		Food: Adapting a recipe			Electrical Systems (Torches/Robot)	Textiles: Fastening
YEAR 5	Structures: Bridges			Mechanisms: Pop up book		Textiles: Stuffed toy
YEAR 6				Food: Come dine with me	Textiles: Waistcoats	Mechanisms: Buggies

KS2 expectations	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<b>Planning</b> Communicating ideas and creating prototypes for product	Share and discuss ideas with others Order the main stages of making Choose materials to use based on suitability of their properties Represent ideas in diagrams, annotated sketches and computer based programmes	Share and discuss ideas with others Order the main stages of making Choose materials to use based on suitability of their properties Represent ideas in diagrams, annotated sketches and computer based programmes	Share and discuss ideas with others Record a step by step plan for making Produce lists for the tools, equipment and materials they will be using Choose materials to use based on suitability of their properties and	Share and discuss ideas with others Record a step by step plan for making Produce lists for the tools, equipment and materials they will be using Choose materials to use based on suitability of their properties and



	(where appropriate) Create pattern pieces and prototypes	(where appropriate) Create pattern pieces and prototypes	aesthetic qualities Represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate) Create pattern pieces and prototypes	aesthetic qualities Represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate) Create pattern pieces and prototypes
<b>Making</b> Selecting the tools and applying the practical skills and techniques	Choose suitable tools for making whilst explaining why they should be used Use design criteria whilst making Follow safety and food hygiene procedures Measure, mark, cut and shape materials and components with some accuracy Join, assemble and combine materials and components with some accuracy Use finishing techniques, including skills learnt in Art with some accuracy	Choose suitable tools for making whilst explaining why they should be used Use design criteria whilst making Follow safety and food hygiene procedures Measure, mark, cut and shape materials and components with some accuracy Join, assemble and combine materials and components with some accuracy Use finishing techniques, including skills learnt in Art with some accuracy	Choose suitable tools for making whilst explaining why they should be used Use design criteria whilst making Follow safety and food hygiene procedures Measure, mark, cut and shape materials and components accurately Join, assemble and combine materials and components accurately Demonstrate problem solving skills when encountering a mistake or practical problem Use finishing techniques, including skills learnt in Art accurately	Choose suitable tools for making whilst explaining why they should be used Use design criteria whilst making Follow safety and food hygiene procedures Measure, mark, cut and shape materials and components accurately Join, assemble and combine materials and components accurately Demonstrate problem solving skills when encountering a mistake or practical problem Use finishing techniques that involve a number of steps, including skills learnt in Art accurately
<b>Evaluation</b> Referring to planning and initial ideas in evaluating their product	Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product	Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product	Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product	Use design criteria to evaluate product – looking at quality of end product and design and whether it is fit for its intended purpose Consider the views of others, including intended user, whilst evaluating product



<p><b><u>Teaching cooking and nutrition</u></b></p> <p>Understanding food and food preparation</p>	<p><b><u>Lower KS2</u></b></p> <p>Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe</p> <p>Understand that recipes can be changed by adding or taking away ingredients Understand that the seasons can affect food produce</p>	<p><b><u>Upper KS2</u></b></p> <p>Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe</p> <p>Understand that the seasons can affect food produce</p> <p>Understand that sometimes raw ingredients need to be processed before they can be used in cooking (eg. De-feathering a chicken)</p> <p>Understand that recipes can be adapted to change the appearance, taste and aroma of a dish</p>
<p><b><u>Teaching cooking and nutrition</u></b></p> <p>Food preparation, cooking and nutrition</p>	<p><b><u>Lower KS2</u></b></p> <p>Sort foods into the 5 groups using The Eatwell Plate and identify that this makes up a healthy diet</p> <p>Identify that food and drink are needed to provide energy for a healthy and active lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day</p> <p>Prepare simple dishes hygienically and safely, where needed with a heat source</p> <p>Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking</p>	<p><b><u>Upper KS2</u></b></p> <p>Sort foods into the 5 groups using The Eatwell Plate and identify that this makes up a healthy diet</p> <p>Identify that food and drink provide certain nutritional and health benefits which support a healthy lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day</p> <p>Prepare simple dishes hygienically and safely, where needed with a heat source</p> <p>Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking</p>