



SIR ROBERT GEFERY'S SCHOOL

A School for Enthusiasts



What the National Curriculum requires in design and technology at KS1

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.

What the National Curriculum requires in design and technology at KS2

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.

**What the National Curriculum
requires in cooking and nutrition at KS1 and KS2**

Pupils should be taught to:

Key stage 1

- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from.

Key stage 2

- 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.

A Year 1 designer	A Year 2 designer	A Year 3 designer
<ul style="list-style-type: none"> • I use my own ideas to make something. • I describe how something works. • I cut food safely. • I make a product which moves. • I make my model stronger. • I explain to someone else how I want to make my product. • I choose appropriate resources and tools. • I make a simple plan before making. 	<ul style="list-style-type: none"> • I think of an idea and plan what to do next. • I choose tools and materials and explain why I have chosen them. • I join materials and components in different ways. • I explain what went well with my work. • I explain why I have chosen specific textiles. • I measure materials to use in a model or structure. • I describe the ingredients I am using. 	<ul style="list-style-type: none"> • I prove that my design meets some set criteria. • I follow a step-by-step plan, choosing the right equipment and materials. • I design a product and make sure that it looks attractive. • I choose a material for both its suitability and its appearance. • I select the most appropriate tools and techniques for a given task. • I make a product which uses both electrical and mechanical components. • I work accurately to measure, make cuts and make holes. • I describe how food ingredients come together.

A Year 4 designer	A Year 5 designer	A Year 6 designer
<ul style="list-style-type: none"> • I use ideas from other people when I am designing. • I produce a plan and explain it. • I evaluate and suggest improvements for my designs. • I evaluate products for both their purpose and appearance. • I explain how I have improved my original design. • I present a product in an interesting way. • I measure accurately. • I persevere and adapt my work when my original ideas do not work. • I know how to be both hygienic and safe when using food. 	<ul style="list-style-type: none"> • I come up with a range of ideas after collecting information from different sources. • I produce a detailed, step-by-step plan. • I suggest alternative plans; outlining the positive features and draw backs. • I explain how a product will appeal to a specific audience. • I evaluate appearance and function against original criteria. • I use a range of tools and equipment competently. • I make a prototype before make a final version. • I show that I can be both hygienic and safe in the kitchen. 	<ul style="list-style-type: none"> • I use market research to inform my plans and ideas. • I follow and refine my plans. • I justify my plans in a convincing way. • I show that I consider culture and society in my plans and designs. • I show that I can test and evaluate my products. • I explain how products should be stored and give reasons. • I work within a budget. • I evaluate my product against clear criteria.