



Year 6

COMPONENT SKILL

Design

To design purposeful, functional and appealing products for themselves and other users.

To draw on a range of ideas to inform and influence their designs.

To draw on market research to inform design.

To use research of users' needs and wants to inform design.

To identify purposeful and specific criteria for their designs.

To generate own success criteria and specifications.

To communicate their ideas through a variety of methods.

To produce refined plans, including exploded diagrams and cross sectional drawings.

To independently use prototypes and computer aided design.

To create, discuss and share their designs with others.

To develop innovative and interesting design ideas.

To clearly explain how their designs are fit for purpose, considering factors such as cost, resources and time.

COMPONENT SKILL

Make

To select from and use a range of tools, equipment, materials and components.

To cut and join materials together using a variety of techniques.

To accurately and efficiently measure, mark and cut out.

To assemble and join materials/components to make the design more fit for purpose.

To shape and finish their designs using a variety of techniques.

To pay close attention to detail when shaping their design.

To consider both function and aesthetic when finishing off their design.

To choose appropriate materials and components to make their designs.

To consider functionality and aesthetics when selecting materials which are fit for purpose.

To choose appropriate tools and equipment to make their design.

To use selected tools with precision and accuracy

To consider practical restraints when producing a list of tools need.

COMPONENT SKILL

Evaluate

To explore and evaluate a range of existing products and their own ideas and products.

To research and evaluate existing designs and products.	To complete thorough investigations of the efficacy of existing products.
	To discuss the wider impact of existing products – including their cost, environmental and societal impact.
	Discuss some key inventors, designers, engineers, chefs and manufacturers of ground-breaking concepts or products.
To evaluate and adapt their own designs as they plan them.	To constantly evaluate the quality of their design and adapt as necessary by referring to their previous research on existing products and on their own success criteria.
To evaluate and adapt their own designs as they make them.	To constantly evaluate the quality of their product and adapt as necessary by referring to their previous research on existing products and on their own success criteria.
To evaluate their final product against a specific success criteria and reflect on how they could improve their designs in future.	To consider both function and aesthetic while evaluating and testing the final product and deciding whether the design is fit for purpose.
	To discuss whether different resources or approaches would improve the design.
COMPONENT SKILL Technical Knowledge To build structures, exploring how they can be improved and understand and use mechanisms in their products.	
To learn how to make structures more robust and fit for purpose.	To reinforce/strengthen 3D structures after testing.
	To refine products; considering purpose, function and aesthetics.
To use a variety of mechanisms and mechanical systems in their designs.	To use cams, pulleys and gears to create movement.
To use electrical systems in their designs when appropriate.	To use different types of circuits.
	To think of ways in which adding a circuit might improve a product.
To incorporate computing into their design when appropriate.	To program a computer to monitor changes in environment and control product.
COMPONENT SKILL Cooking and Nutrition To use the basic principles of a healthy and varied diet to prepare dishes and understand where food comes from.	
To understand and reflect on what it means to follow a healthy diet and lifestyle.	To explain the effects of different food groups on the body and on wellbeing.
	To identify some of the potential consequences of a poor diet on long term health and wellbeing.

To understand and reflect on where food comes from and the wider global context.	To understand and explain the processes involved in the processing of food and the wider impact this has on the environment and health.
To select and present recipes in a variety of interesting ways.	To use a wide range of techniques and ingredients in order to present a product or dish to a high standard to make it interesting and aesthetically pleasing.
To learn key skills in the preparation of food, including safety and hygiene.	To understand and follow guidelines on food hygiene and safety (e.g. expiration dates and potential hazards)
	To explain how recipes can be adapted to change the appearance, texture and flavour.