



	National Curriculum	Mechanisms and Structures	Textiles	Food and Nutrition
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		-Gather information about the needs and wants of particular individual using interviews -Design a functional product that meets the needs of an individual (based on research) -Describe how specific parts of their product works and how this meets the needs of the user. -Develop their ideas by creating annotated sketches with increasing detail. -Model ideas by creating prototypes / 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	-Use paper mache to create a professional finish. -Choose appropriate materials for their project based on properties. -Choose appropriate tools for performing practical tasks.	-Use pattern pieces to cut out fabric and then join together using the sewing machine/hand stitch. (eg to create a simple bag) -Can thread a needle on a sewing machine with support and practice ending stitch -Can use tie dye to create a fabric design with a professional finish.	-Choose the correct piece of equipment to prepare food (knife, peeler, grater) -Choose appropriate ingredients based on taste.
Evaluate	Investigate and analyse a range of existing products, Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work Understand how key events and individuals in design and technology have helped shape the world	To look at a range of existing products and identify strengths/weaknesses of each.  Can explain how pneumatics were/are used around the world.	To look at a range of existing products and identify strengths/weaknesses of each.  To understand why tie dye was so popular in the 60s and 70s.	Evaluate food based on appearance and taste.
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	Understand the purpose of levers and how pneumatics can be used to power products.  Use corrugation to strengthen structures  Join cardboard together using tabs	Understand how to securely join fabric together.	Use IT to explore design ideas - to research design ideas or draw a design using a basic paint program  Join cardboard together using tabs
Cooking and Nutrition	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.			Understand which foods are reared, caught, or grown Sort foods into the 5 groups and identify that this makes up a healthy diet Prepare simple dishes hygienically and safely, where needed Understand that recipes can be changed by adding or taking away ingredients Identify that food and drink are needed to provide energy for a healthy and active lifestyle Weigh ingredients to an appropriate level of accuracy