

ITERATIVE PROCESS OF DESIGNING AND MAKING	NC Purpose of Study			Aims	
	<ul style="list-style-type: none"> <li>To solve real and relevant problems</li> <li>Consider their own and others' needs, wants and values</li> <li>Take risks</li> <li>Evaluate, critical</li> </ul>			<ul style="list-style-type: none"> <li>Develop creative, technical and practical expertise</li> <li>Build and apply a repertoire of knowledge, understanding and skills</li> <li>Design and make high quality prototypes</li> <li>Critique, evaluate and test their ideas</li> <li>Work with others</li> <li>Understand and apply the principles of nutrition and learn how to cook</li> </ul>	
	Design	Make	Evaluate	Technical knowledge	Cooking and Nutrition
KS1	<ul style="list-style-type: none"> <li>Purposeful, functional, appealing projects, based on design criteria</li> <li>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups, and IT</li> </ul>	<ul style="list-style-type: none"> <li>Select from and use a range of tools and equipment to perform practical tasks (ie cutting, shaping, joining, finishing)</li> <li>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul>	<ul style="list-style-type: none"> <li>Explore and evaluate a range of existing products</li> <li>Evaluate their ideas and products against design criteria</li> </ul>	<ul style="list-style-type: none"> <li>Build structures, exploring how they can be made stronger, stiffer and more stable</li> <li>Explore and use mechanisms (ie levers, sliders, wheels and axles) in their products</li> </ul>	<ul style="list-style-type: none"> <li>Use the basic principles of a healthy and varied diet to prepare dishes</li> <li>Understand where food comes from</li> </ul>

## KS2

- 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

- Select from and use a wide range of tools and equipment to perform practical tasks (ie cutting, shaping, joining and finishing) accurately
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

- 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

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Understand and use mechanical systems in their products (ie gears, pulleys, cams, levers and linkages)
- Understand and use electrical systems in their products (ie series circuits, incorporating switches, bulbs, buzzers and motors)
- Apply their understanding of computing to program, monitor and control their products

- Understand and apply the principles of a health 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