

## **Design Technology Progression and Assessment Grids**

KS1	LKS2	UKS2
Intent		

At Whittingham C of E Primary School we intend to build a Design Technology curriculum which develops learning and results in the acquisition of knowledge and skills. Children will know more, remember more and understand more.

We intend to design a design technology curriculum with appropriate subject knowledge, skills and understanding as set out in the National Curriculum Design Technology Programmes of study, to fulfil the duties of the NC whereby schools must provide a balanced and broadly-based curriculum which promotes the spiritual, moral, cultural, mental and physical development of pupils and prepares them for the opportunities and responsibilities and experiences for later life

• Ensure we are covering skills and concepts from the National Curriculum

• We aim to develop their practical skills through a variety of ways.

• We will ensure children have the opportunity to use and develop these skills throughout the lessons.

## Implementation:

- We will structure lessons so that prior learning and revision of key skills are continuously built upon.
- We will ensure key skills and techniques are introduced and used with lessons.

## Impact:

- We want children to develop a love of cooking, designing and creating.
- We will measure the impact of learning through assessing their development of key skills.

	Year 1	Year 2	Year 3
ooking and lutrition	• cut food safely	<ul> <li>understand the need for a variety of food in a diet</li> <li>group familiar food groups e.g. fruit and vegetables</li> <li>measure and weigh food items – using informal methods</li> </ul>	<ul> <li>say what to do to be hygienic and safe</li> <li>begin to be able to read and understand food labels</li> <li>measure and weigh ingredients appropriately</li> </ul>
ook utr	Year 4	Year 5	Year 6
N CO	<ul> <li>understand what makes a healthy and balanced diet and that different foods and</li> </ul>	<ul> <li>know appropriate portion sizes and the importance of not skipping meals, including breakfast</li> </ul>	understand the main food groups and the different nutrients that are important for health

	drinks provide different substances the body needs to be healthy and active • understand seasonality and know how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable/tasty to eat	<ul> <li>understand some of the basic processes to get food from farm to plate</li> <li>taste a range of ingredients and food items to develop a food vocabulary when designing</li> </ul>	<ul> <li>use information on food labels to inform choices</li> <li>join and combine ingredients appropriately e.g. beating, rubbing in</li> </ul>
	Year 1	Year 2	Year 3
	generate ideas and recognise characteristics of familiar products • use pictures and words to describe what he/she wants to do • select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing • choose materials and explain why they are being used • explore and evaluate a range of existing products • build structures, exploring how they can be made stronger, stiffer and more stable • use levers and sliders	<ul> <li>design purposeful, functional, appealing products for himself/herself and other users based on design criteria • generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> <li>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> <li>choose materials and explain why they are being used depending on their characteristics</li> <li>evaluate his/her ideas and products against design criteria</li> <li>join materials together as part of a moving structure</li> <li>explore and use mechanisms e.g. levers, sliders, wheels and axles, in his/her products</li> </ul>	<ul> <li>demonstrate that his/her design meets a range of requirements</li> <li>complete a plan that shows the order and also what equipment and tools he/she needs</li> <li>use equipment and tools accurately</li> <li>explain how he/she has selected appropriate materials and components to create a finished product that will be of good quality</li> <li>investigate and analyse a range of existing products</li> <li>strengthen frames using diagonal struts • use a simple circuit in his/her product</li> </ul>
	Year 4	Year 5	Year 6
Processes	<ul> <li>investigate similar products to the one to be made to give starting points for a design • generate alternative plans and expound on the good points and drawbacks of his/her original design • select from and use a wider range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing, accurately</li> <li>explain how his/her choices of materials and components have contributed to the aesthetic</li> </ul>	<ul> <li>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 • create prototypes to show his/her ideas • use tools and materials precisely • 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</li> <li>evaluate his/her ideas and products against his/her own design criteria and consider the views of others to improve his/her work</li> <li>apply his/her understanding of how to strengthen, stiffen and</li> </ul>	<ul> <li>use market research to inform plans</li> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design</li> <li>make modifications to the original design as he/she proceeds</li> <li>cut and join with accuracy to ensure a high quality finish to his/her product</li> <li>understand how key events and individuals in</li> </ul>

qualities of his/her finished product	reinforce more complex structures	design and technology have helped shape the
<ul> <li>consider how the finished product might be</li> </ul>	<ul> <li>understand and use electrical systems in his/her products e.g.</li> </ul>	world
improved and how well it meets the needs of	series circuits incorporating switches, bulbs, buzzers and motors	<ul> <li>construct products using different joining</li> </ul>
the user		techniques
• join and combine materials and components		<ul> <li>apply his/her understanding of computing to</li> </ul>
accurately in temporary and permanent way		program, monitor and control his/her product
<ul> <li>understand and use mechanical systems in</li> </ul>		
his/her products e.g. gears, pulleys, cams,		
levers and linkages		

Key Vocabulary		
KS1	KS2	
Design Purposeful Functional	Innovate Research Develop Functional Appealing	
Product Generate Develop Model	Annotate Sketch Cross sectional Exploded Diagrams	
Template Mock up Make Tools	Prototypes Pattern pieces Computer aided design	
Equipment Components Construction Textiles	Investigate/Analyse Strengthen Stiffen Reinforce	
Ingredients Evaluate Explore Healthy/Varied Diet	Mechanical Systems Electrical Systems Monitor	
Food Processes	Control Seasonality Reared Caught Processed Savory	