


West Ashton CE Primary School Progression in Design and Technology Skills

	Expectations within the Foundation Stage Nursery  Reception					Skills Linked to KS1 Curriculum
Collage	Use glue sticks with support	Use glue spatulas with support	Use glue sticks and glue spatulas independently	Join items with glue or tape	Joins items in a variety of ways – Sellotape, masking tape, string, ribbon...	Join items which have been cut, torn or glued.
			Adds other materials to develop models (tissue paper, glitter, gems etc).	Knows how to improve models i.e. scrunch, twist, fold, bend, roll ...	Knows how to secure boxes, toilet rolls, secure bottles etc to make and construct.	Understand how to improve models by adding texture.
	Only one texture is used to make marks and creations.		Additional textures are used to make creations, children label these textures as smooth or bumpy.	Children explore texture further using developing fine motor skills and vocabulary.		Children are able to make collages, mosaics and weaved items using different materials.
Sculpture	Builds towers by stacking objects.	Builds walls to create enclosed spaces.	Builds simple models using walls, roofs and towers.	Builds models which replicate those in real life. Can use a variety of resources – loose parts play.		Use a variety of natural, recycled and manufactured materials to sculpt.
	Explores clay/playdough	Makes marks in clay/playdough	Manipulates clay/playdough i.e. rolls, cuts, squashes, pinches, twists....	Makes something that they give meaning to.	Makes something with clear intentions.	Uses a variety of techniques and shapes to sculpt.

	Y1/2	Y3/4	Y5/6
Developing, planning and communicating ideas	<ul style="list-style-type: none"> • Begin to understand the development of existing products: What they are for, how they work, materials used. • Start to generate ideas by drawing on their own and other people's experiences • Understand how to identify a target group for what they intend to design and make based on a design criteria • Begin to develop their design ideas through discussion, observation, drawing and modelling • Identify a purpose for what they intend to design and make. • Understand how to identify a target group for what they intend to design and make based on a design criteria • Develop their ideas through talk and drawings and label parts • Make templates and mock ups of their ideas in card and paper or using ICT. 	<ul style="list-style-type: none"> • Start to generate ideas, considering the purposes for which they are designing and the views of others, including intended users, to improve their work • Start to order the main stages of making a product. • Identify a purpose and establish criteria for a successful product. • Understand how well products have been designed, made, what materials have been used and the construction technique • Confidently make labelled drawings from different views showing specific features • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail • Identify the strengths and areas for development in their ideas and products • Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products • Know to make drawings with labels when designing. • When planning explain their choice of materials and components including function and aesthetics. 	<ul style="list-style-type: none"> • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose • Accurately apply a range of finishing techniques, including those from art and design • Draw up a specification for their design • Plan the order of their work, choosing appropriate materials, tools and techniques • Use results of investigations, information sources, including ICT when developing design ideas. • With growing confidence select appropriate materials, tools and techniques. • Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose. • Suggest alternative methods of making if the first attempts fail. • Identify the strengths and areas for development in their ideas and products. • Know how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose

Working with tools, equipment, materials and components to make quality products

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| <ul style="list-style-type: none"> • Begin to select tools and materials; use correct vocabulary to name and describe them. • 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 • With help measure, cut and score with some accuracy. • Learn to use hand tools safely and appropriately. • Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape • Demonstrate how to cut, shape and join fabric to make a simple product. • Use basic sewing techniques. • Start to choose and use appropriate finishing techniques | <ul style="list-style-type: none"> • Select a wider range of tools and techniques for making their product i.e. construction materials and kits, textiles, food ingredients, mechanical components and electrical components • Explain their choice of tools and equipment in relation to the skills and techniques they will be using. • Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. • Start to join and combine materials and components accurately in temporary and permanent ways including fabric • Start to understand that mechanical and electrical systems have an input, process and output and that mechanical systems such as levers and linkages or pneumatic systems create movement • Know how mechanical systems such as cams or pulleys or gears create movement. • Understand how more complex electrical circuits and components can be used to create functional products • Work safely and accurately with a range of simple tools. • Start to think about their ideas as they make progress and be willing to change things if this helps them to improve their work. | <ul style="list-style-type: none"> • Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately. • Use tools safely and 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. • Assemble components to make working models. • Aim to make and to achieve a quality product. • With confidence pin, sew and stitch materials together to create a product. • Construct products using permanent joining techniques. • Understand how mechanical systems such as cams or pulleys or gears create movement. • Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products. • Know how to reinforce and strengthen a 3D framework. • Understand that mechanical and electrical systems have an input, process and output. • Measure and mark out accurately. • Demonstrate how to use skills in using different tools and equipment safely and |
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		<ul style="list-style-type: none"> • Understand how to reinforce and strengthen a 3D framework. • Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT. 	<p>accurately with growing confidence cut and join with accuracy to ensure a good-quality finish to the product.</p> <ul style="list-style-type: none"> • Weigh and measure accurately (time, dry ingredients, liquids). • Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.
Evaluating processes and products	<ul style="list-style-type: none"> • Evaluate their product by discussing how well it works in relation to the purpose (design criteria) • When looking at existing products explain what they like and dislike about products and why • Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make 	<ul style="list-style-type: none"> • Evaluate their product against original design criteria e.g. how well it meets its intended purpose and by carrying out tests • Start to evaluate their work both during and at the end of the assignment. • Disassemble and evaluate familiar products and consider the views of others to improve them. • Evaluate the key designs of individuals in design and technology has helped shape the world. 	<ul style="list-style-type: none"> • Evaluate their work both during and at the end of the assignment. • Record their evaluations using drawings with labels. • Begin to evaluate it personally and seek evaluation from others. • Evaluate against their original criteria and suggest ways that their product could be improved. • Evaluate the key designs of individuals in design and technology has helped shape the world.
Food and Nutrition	<ul style="list-style-type: none"> • Understand that all food comes from plants or animals. • Know that food has to be farmed, grown elsewhere (e.g. home) or caught. • Understand how to name and sort foods into the five groups in 'The Eat well plate' • Know that everyone should 	<ul style="list-style-type: none"> • Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. • Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source 	<ul style="list-style-type: none"> • Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. • Understand that seasons may affect the food available. Understand how food is processed into ingredients that can be eaten or used in cooking • Know how to prepare and cook a variety of predominantly savoury dishes

	<p>eat at least five portions of fruit and vegetables every day.</p> <ul style="list-style-type: none"> • Know how to use techniques such as cutting, peeling and grating. • Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. • Demonstrate how to use techniques such as cutting, peeling and grating 	<ul style="list-style-type: none"> • Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. • Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' • Know that to be active and healthy, food and drink are needed to provide energy for the body 	<p>safely and hygienically including, where appropriate, the use of a heat source.</p> <ul style="list-style-type: none"> • Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. • Know different food and drink contain different substances - nutrients, water and fibre - that are needed for health
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