



Rawmarsh Ryecroft Infants School – Progression Map – Design and Technology

Design and Technology	<u>Values and Vision</u>		
	"Secure, Happy and Successful" Resilience - I always keep going Respect - I value everybody and everything Care - I look after my world and the people in it. Achievement - I try to be the best I can be Community - I am proud of where I belong		
<u>Intent</u> Children will experience design and technology as an exciting and practical subject. Using their creativity and imaginations, they will design and make products that solve real problems within a variety of contexts. They will acquire a range of skills and draw on their learning from across the curriculum such as art and maths. Children will learn how to take risks, becoming resourceful, innovative and enterprising.	<u>Implementation</u> Through practical and creative activities, children learn the steps of design, production and evaluation using relevant context and problems to stimulate their interest and enthusiasm. Taught strategies and techniques are built upon using a progression of skills and through a topic centred curriculum, where knowledge is acquired as part of cross curricular learning. By the end of Year Two, it is expected that most children will have developed their knowledge and understanding of all the skills set out in Key Stage One.	<u>Impact</u> Children will develop the creative, technical and practical skills needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. They will build and apply their knowledge, understanding and skills to design and make high-quality products. They will apply their understanding of nutrition and learn to simply cook. With support, they will evaluate and test their ideas and products and the work of others.	

Objectives and Vocabulary			
	FS2	Year 1	Year 2
Objectives	<u>ELG PD</u> FMS - Use a range of small tools effectively <u>ELG EA and D</u> CWM - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function CWM- Share their creations, explaining the process they have used	<u>National Curriculum</u> <u>Design</u> Design products for themselves and other users based on design criteria. Generate and communicate their ideas through talking and drawing. <u>Make</u> Use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials, textiles and ingredients, according to their characteristics. <u>Evaluate</u> Explore and evaluate a range of existing products.	<u>National curriculum</u> <u>Design</u> Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. <u>Make</u> Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

		Evaluate their products against design criteria. <u>Technical knowledge</u> Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms [for example, levers, sliders], in their products. <u>Cooking and Nutrition</u> Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.	<u>Evaluate</u> Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. <u>Technical knowledge</u> 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. <u>Cooking and Nutrition</u> Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.
Vocabulary	model, design, draw, mix, cut, stick, make, healthy, unhealthy.	join, user, criteria, design, product, trial and error, lever, slider, template, mechanism, evaluate, material, peel, squeeze, measure, sew.	assemble, purpose, trial and error, evaluate, spread, measure, knead, grate, vehicle, terrain, recipe, model, hygiene, finishing techniques, wheels, axel, tools, existing product.

As designers and technologists, we need to be able to ...

	FS2	Year 1	Year 2
Design	I know that I can draw a simple design of something that I would like to make. I know that I can share my ideas about what a product might need, do or have through talking.	I know how to use my experience of a product to help me think of my own ideas. I know what product I am designing and making. I know how to draw a design for myself or another user using a given design criteria. I know how to communicate my ideas by talking and drawing.	I know how to describe what my product is for. I know how my product will work. I know how to make a product suitable for the intended user. I know how to use a simple design criteria to help me develop my ideas. I know how to use existing products to help me come up with ideas. I know how to model my ideas by using and exploring materials, components and construction kits and by making templates and mock-ups.
Make	I know that different materials can be used for different purposes. I know how to cut, bend, shape, thread and use simple tools.	I know that making a product can be done in steps. I know that tools and equipment are used for a specific purpose.	I know what I need to do next when making my product. I know what tools and equipment I need to make my product explaining my choices.

	I know how to use tools and equipment safely. I know how to join materials together with some support. I know how to use various construction materials.	I know that there are a range of materials and components can be used to create a product. I know what I need to do to make a product. I know that there are procedures for safety and hygiene to keep me safe and can follow these with support. I know how to use tools to perform practical tasks with support. I know how to assemble, join and combine materials and components with support. I know how to add some finishing techniques to my product with support.	I know what materials and components I need to construct a product according to their characteristics. I know how to follow procedures for safety and hygiene. I know how to use a range of tools to perform practical tasks. I know how to measure, mark out, cut and shape materials and components. I know how to assemble, join and combine materials and components. I know how to use finishing techniques to my product.
Evaluate	I know how to share my creations by talking about how it is made. I know how to evaluate my product by saying what I like about the product I have made.	I know how to explore an existing product to say what the product is, what products are for and who it is for. I know how to complete a simple evaluation to say whether my product met the design criteria.	I know how to evaluate an existing product by saying what they are, what it is for, and who it is for. I know how products work. I know how products are used. I know where products might be used. I can say what materials products are made from. I know how to evaluate a product by saying what I like about a product and what I dislike about a product. I know how to make a simple judgement about my product and ideas against the design criteria and suggest how my product could be improved.
Technical knowledge	I know how to describe the texture of things. I know how to use construction materials to build a structure.	I know some simple characteristics of materials and components. I know that a slider will move in a straight line and a lever moves in a curve. I know what a mechanism is and know how to include a mechanism in my product with support. I know how to make a structure more stable, stiffer and stronger with some support. I know that I can use two identical pieces of fabric to create a 3D textiles product. I know that food ingredients should be combined according to their sensory characteristics with support.	I know the simple working characteristics of materials and components. I know that wheels and axes are mechanisms that turn. I know how to build structures and how they can be made stronger, stiffer and more stable. I can select and combine food ingredients according to their characteristics in order to meet the design criteria.

Cooking and Nutrition	I know and can name some healthy and unhealthy foods. I know how to cut, spread, mix simple foods with support.	I know that all food comes from plants or animals. I know which foods are healthy. I know how to prepare a simple dish safely and hygienically (without a heat source) with support. I know how to cut (with a cutter), peel (with hands), crush, shape, mix/stir, spoon, measure (by counting spoons) tear, cut (soft food with a butter knife)	I know that food must be farmed, grown or caught. I know the 5 food groups from the Eatwell guide and I know which foods belong in each group. I know how to prepare a simple dish safely and hygienically without the use of a heat source. I know how to juice, spread, shape, mix/stir, spoon (using different sized measuring spoons), cut out, grate (soft foods), and cut (using a fork to secure foods),
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