

Design and Technology– Progression of skills – Mevagissey Primary School



D &T - : Autumn1 Autumn 2 Spring1 Spring 2 Summer1 Summer 2

Curriculum Intent:

By the end of Key Stage One,

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

By the end of Key Stage Two,

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment]. As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design		<p>Design and make purposeful and functional products.</p> <p>Use pictures and words to convey what they want to design and make.</p> <p>Describe and explain what they are making, how it works and what they need to do next.</p>	<p>Design and make purposeful, functional and appealing products.</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock ups and where appropriate information technology</p>	<p>Use research to develop the design of functional and appealing products.</p> <p>Record plan by drawing labelled sketches or writing and discuss this while working.</p>	<p>Use research and develop design criteria to design functional and appealing products that are fit for purpose.</p> <p>Consider different ways in which they can creatively record their planning to engage an audience.</p>	<p>Use research and develop design criteria to design innovative, functional and appealing products that are fit for purpose and aimed at particular groups or individuals.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams</p>	<p>Use research and exploration to identify and understand user needs when designing a product.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.</p>
Make		<p>Name the tools you are using. Use given tools for a variety of tasks e.g. Knife, grater, chopping board, scissors, needles, pins, scissors, templates, glue, tape.</p> <p>Join appropriately for different materials and situations. Explore ideas by rearranging materials e.g. paper, card,</p>	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and</p>	<p>Think ahead about the order of their work and plan tools and materials needed. E.g. Weighing scales, glue gun, ruler.</p> <p>Consider working characteristics of materials.</p>	<p>Use tools and equipment, including those needed to weigh and measure ingredients, with accuracy.</p> <p>Join and combine a range of materials, some with temporary, fixed or moving joints.</p>	<p>Select and use tools and equipment for a range of uses. E.g. cut and shape ingredients, join fabrics, cut accurately and safely, use bradawl to mark holes, hand drill and pin and tacks during textile work.</p> <p>Join and combine a range of materials and ingredients using</p>	<p>Select from and use specialist tools and techniques for a range of uses. E.g. Whisk, craft knife, cutting mat, safety ruler.</p> <p>Select from and use a wider range of materials, components and ingredients taking into account their aesthetic properties.</p>

		ingredients, fabrics, sequins, buttons, tubes, dowel, cotton reels, paper, card, mouldable materials.	ingredients, according to their characteristics			appropriate methods. E.g. beating, rubbing in, drilling, gluing, sewing, screwing	
Evaluate		Explore and evaluate existing products. Say what they like and do not like about products they have made. Consider and explain how the finished product could be improved.	Explore and evaluate existing products. Talk about their developing designs and identify good points and areas to improve throughout the design process. Evaluate their product and its appearance against a design criteria.	Investigate and analyse a range of existing products. Identify strengths and areas to improve in their own design. Identify what does and does not work in the product.	Use investigations of existing products to inform planning of their own product. Check their work as it develops and modify approach in light of progress. Discuss how well their product meets the design criteria and the needs of the user.	Show a clear understanding of the specification and use this to inform decisions. Justify decisions about materials and methods of construction. Evaluate products and use of information sources.	Test, evaluate and refine ideas and products against a specification. Justify decisions made during the design process. Evaluate products and use of information sources throughout the process and use this to inform planning. Understand how key events and individuals in design and technology have helped shape the world
Technical knowledge		Build structures and investigate how they can be made more stable. Create models with wheels and axles using a range of materials to create models with levers and sliders. Insert paper fasteners for card linkages.	Build structures and investigate how they can be made stronger, stiffer and more stable. Create models with wheels and axles using a range of materials to create models with levers and sliders.	Create shell or frame structures and make structures more stable. Join and combine materials with temporary, fixed or moving joining. Incorporate a circuit with a bulb or buzzer into a model.	Prototype shell or frame structures. Strengthen frames with diagonal struts. Use lolly sticks/card to make levers and linkages.	Build frameworks using a range of materials e.g. wood, corrugated card, plastic to support mechanisms. Use a CAM to make an up and down mechanism. Incorporate motor and a switch into a model.	Build complex frameworks using a range of materials to support mechanisms. Use linkages to make movement larger or more varied. Apply their understanding of computing to program
Cooking and nutrition		Use the basic principles of a healthy and varied diet to prepare dishes	Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from	Understand and apply the principles of a healthy and varied diet	Prepare and cook a range of predominately savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared and caught	Prepare and cook a range of predominately savoury dishes using a range of cooking techniques	Prepare and cook a range of predominately savoury dishes using a range of cooking techniques Understand how food is processed