

Wath Victoria Primary School

DT Progression of Skills and Knowledge – based on Chris Quigley’s Essentials curriculum

YEAR A

YEAR B

		Milestone 1: By the age of 7, children should be able to:	Milestone 2: By the age of 9, children should be able to:	Milestone 3: By the age of 11, children should be able to:
To master practical skills	Food	Cut, peel or grate ingredients safely and hygienically.	Prepare ingredients hygienically using appropriate utensils.	Understand the importance of correct storage and handling of ingredients using knowledge of micro-organisms).
		Measure or weigh using measuring cups or electronic scales.	Measure ingredients to the nearest gram accurately.	Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.
		Assemble or cook ingredients.	Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).	Demonstrate a range of baking and cooking techniques.
			Follow a recipe.	Create and refine recipes including ingredients, methods, cooking times and temperatures.
	Materials	Cut materials safely using tools provided.	Cut materials accurately and safely by selecting appropriate tools.	Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape.)
		Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).	Select appropriate joining techniques.	
		Measure and mark out to the nearest centimetre.	Measure and mark out to the nearest millimetre.	
		Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).	Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the materials (such as slots or cut outs).	

To master practical skills				cut paper).
	Textiles	Shape textiles using templates.	Understand the need for a seam allowance.	Create objects (such as a cushion) that employ a seam allowance.
		Join textiles using running stitch.	Join textiles with appropriate stitching.	Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration)
		Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).	Select the most appropriate techniques to decorate textiles.	Use the quality of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).
	Electricals and electronics	Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).	Create series and parallel circuits.	Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).
	Computing	Model designs using software.	Control and monitor models using software designed for this purpose.	Write code to control and monitor models or products.
	Construction	Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.	Choose suitable techniques to construct products or to repair items.	Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding).
			Strengthen materials using suitable techniques.	
	Mechanics	Create products using levers, wheels and winding mechanisms.	Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).	Convert rotary motion to linear using cams.
				Use innovative combinations of electronics (or computing) and mechanics in product designs.

To design, make, evaluate and improve.	Design products that have a clear purpose and an intended user.	Design with purpose by identifying opportunities to design.	Designs with the user in mind, motivated by the service a product will offer (rather than simply for profit).
	Make products, refining the design as work progresses.	Make products by working efficiently (such as by carefully selecting materials).	Make products through stages of prototypes, making continual refinements.
		Refine work and techniques as work progresses, continually evaluating the product design.	
	Use software to design	Use software to design and represent product designs.	Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.
			Ensure products have a high quality finish, using art skills where appropriate.
To take inspiration from design throughout history.	Explore objects and designs to identify likes and dislikes of the designs.	Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.	Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.
	Suggest improvements to existing designs.	Improve upon existing designs, giving reasons for choices.	Create innovative designs that improve upon existing products.
	Explore how products have been created.	Disassemble products to understand how they work.	Evaluate the design of products so as to suggest improvements to the user experience.

<p>P4</p> <ul style="list-style-type: none"> • With help, begin to assemble components provided for an activity. • Contribute to activities by coactively grasping and moving simple tools. • Explore options within a limited range of materials. 	<p>P5</p> <ul style="list-style-type: none"> • Use a basic tool, with support. • Demonstrate preferences for products, materials and ingredients. 	<p>P6</p> <ul style="list-style-type: none"> • Recognise familiar products and explore the different parts they are made from. • Watch others using a basic tool and copy the actions. • Begin to offer responses to making activities. 	<p>P7</p> <ul style="list-style-type: none"> • Operate familiar products, with support, and explore how they work. • Use basic tools or equipment in simple processes, chosen in negotiation with the teacher. • Begin to communicate preferences in designing and making. 	<p>P8</p> <ul style="list-style-type: none"> • Explore familiar products and communicate views about them when prompted. • With help, manipulate a range of basic tools in making activities. • Begin to contribute to decisions about what to do and how. 	<p>Early Years</p> <ul style="list-style-type: none"> • Manipulate materials to achieve a planned effect. • Construct with purpose in mind, using a variety of resources. • Select appropriate resources and adapt work where necessary. • Select tools and techniques needed to shape, assemble and join materials. • Create simple representations of events.
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