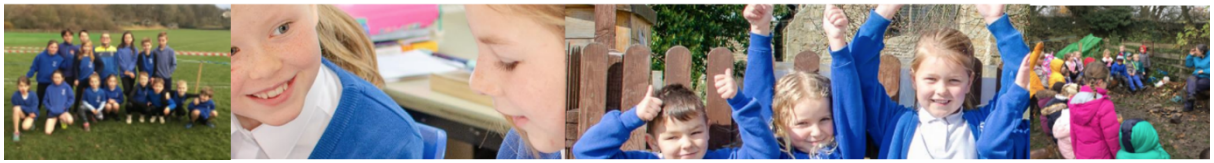
Kildwick CE VC Primary School
Learning to Live - Living to Love - Loving to Learn



Updated July 2021	**Design Technology Essential Knowledge**			
Embedding our learning culture	**Curricular Goal: Know how to design, make and evaluate different products and understand how products have changed through time** **KS2**: How can I design, make and evaluate products and show that I understand how products have changed through time? **KS1**: How can I plan, make and improve products and show I know how products have changed?			
Learning to Live Developing knowledge and awareness of product design in the things we use. Noticing whether products are fit for purpose. what makes a product fashionable/	**Component 1: Know how to design a purposeful, functional and appealing product (design)**			
	Reception Essential Knowledge	Year 1 and 2 Essential Knowledge Year 2 Essential Knowledge	Year3/ 4 /5 Essential Knowledge	Year 6 Essential Knowledge
	How to talk about what my product should look like	The way to design a product • discussions • use simple labelled drawings	The way to design a product • use detailed annotated sketches • use including pattern pieces	The way to design a product showing key detail • use exploded diagrams • use computer aided design
		Templates • use given versions • create own	Simple prototype • identify the purpose • create own	Cross sectional diagrams • identify specific design detail
	Component 2: Know how to make a product by cutting, joining, finishing (make) using specific techniques (technical understanding)			
	Cooking and nutrition Different healthy and unhealthy foods **Making**	**Cooking and nutrition** Healthy and varied snacks • identify • design and make own Fruits and vegetables come from different places	**Cooking and nutrition** Principles of a healthy and varied diet • apply these to design and make a simple meal Food comes from different places How food gets to our plates **Making**	**Cooking and nutrition** Seasonality affects the food we eat • create a healthy and balanced meal based on seasonality Food is reared, caught and processed **Making**

efficient, beautiful. **Living to Love** Learning to appreciate the importance and complexity of product design. Exploring and experimenting, making things work. Sharing thoughts and ideas- favourite designs. **Loving to Learn** Learning about materials, systems, construction and developing knowledge and skills to craft	How to use tools safely to: • mix/blend, pour, and chop	**Making** How to hold a knife and how to make a single cut: • bridge hold	How to hold a knife safely and cut foods in different ways: • fork secure • claw grip	How to use different knives for different purposes
	Textiles Materials can be joined in different ways • tying knots • weaving/sewing There are different ways to cut and shape: • tear • cut • fold (with support)	**Textiles** Natural dyes can change materials • beetroot, red cabbage, tea, onion or spinach etc **Textiles** How to join fabric • simple running stitches • decorate the surface by gluing on beads or buttons	**Textiles** Fabric can be decorated in different ways • simple tie-dye techniques • fabric paint/pens • use designs to depict a story or poem **Textiles** How to join fabric • straight stitches (running stich and back stitch) • cross stitch • blanket stitches to outline the pattern or enhance the design	**Textiles** Fabric can be decorated in different ways • an awareness of the natural environment can be shown through careful colour matching showing understanding of seasonal colours **Textiles** How to join fabric • chain stitch • feather stitches • decorate by sewing on beads, buttons, sequins
		Structures There are different ways to make a structure stable • folding • rolling • grouping • paper or card towers/bridges	**Structures with electrical systems** Simple electrical circuits in products • at least 1 light up component	**Structures with electrical systems** Simple electrical circuits in products • more than one component (light/buzzer/ switch)
		Construction Levers and sliders make things move • create a product e.g. rabbit in hat/moving pictures	**Construction** There are different ways to make a structure stable • structures can be strengthened, stiffed and reinforced to improve stability • buildings/bridges	**Construction** Cams create different movements • moving toys

usable objects for for purpose. To learn and use the design process. learning about the work of designers/ design movements through history and in different cultures.		**Wheels and axles** How to include moving wheels and axles in designs and products • vehicles	**Levers and linkages** How levers and linkages can be used in moving products • moving toys/objects	**Gears and pulleys** How gears and pulleys can be used in products • moving vehicle with pulley and motor
		Making in textiles, construction, structures, wheels and sliders There are different techniques for cutting and shaping: • tearing • cutting, • folding There are different techniques for joining materials: • sewing • glue stick • an appropriate amount of PVA/fabric glue How to use scissors accurately and safely • cut to nearest cm	**Making in textiles, construction, structures, levers and linkages** Different tools should be used based on the material being cut • scissors • hand saw There are different ways to join materials • sewing • fabric glue • PVA glue • glue gun • tape • masking tape • blu-tac How to use scissors accurately and safely • cut to nearest 5mm	**Making in textiles, construction, structures, gears and pulleys** Different tools should be used based on the material being cut • scissors • fabric scissors • hand saw There are different ways to join materials • choose most appropriate way • independently use glue guns safely A smooth finish is created by sanding wood How to use scissors accurately and safely • cut within the perimeter on an object e.g. slots of cut outs
	Component 3: Know how to evaluate a product (evaluation)			
	How to say what went well/could be improved next time	Evaluate existing products based on a given design criteria	Evaluate existing products based on a given design criteria adding in their own specific design criteria.	Analyse existing products, looking at specific component parts, based on a detailed design specification
	People can do different jobs • chef • designer	Key individuals have changed the way we live our lives	Key individuals have helped to shape the world	Key individuals and events in design and technology have helped to shape the world and contribute to engineering advances

	• builder	• Cooking and nutrition: • Textiles: • Construction: • Structures: • Wheels and sliders: Karl Benz	• Cooking and nutrition: • Textiles: Faith Ringold/Phillip Brown • Construction: Filippo Brunelleschi • Structures: Benjamin Franklin • Levers and linkages: James Watt 'Watt's linkage'	• Cooking and nutrition: • Textiles: • Construction: Ismail al-Jazari • Structures: George Ohms/Richard Sapper • Gears and pulleys: Archimedes of Syracuse