

Age Phase	Year Group	Topic name <i>including other subject links</i>	Key Concepts and Technical Knowledge	Main EYFS/National Curriculum Focus	Substantive Knowledge	Disciplinary Knowledge
EYFS	Reception	Christmas decoration <i>Seasons/Christmas</i> Hedgehog threading <i>Science - Autumn Seasonal Changes</i>	Textiles Safely use a variety of materials, threading, explore ways of joining materials (glue/staples).	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. Use a range of small tools, including scissors, paint brushes and cutlery.	Technical Knowledge : Textiles, Structures, Mechanical Systems, Electrical/Computing and Cooking and Nutrition	Design: Understanding contexts, users and purposes, and generating, developing, modelling and communicating ideas. Make: Planning and Practical skills and techniques. Evaluate: Own ideas and products, existing products and key events and individuals.
		Three Little Pigs houses <i>Kings, Queens and Fairytales</i> Nature Reserve – den building	Structures Construct simple structures and models using a range of materials.			
		Junk modelling – Castles <i>Kings, Queens and Fairytales</i> Pop-Up Christmas Card <i>Seasons/Christmas</i> Vehicle with wheels <i>Transport: Past and Present</i>	Mechanical systems Use construction kits to explore wheels and sliders.			
		Children have access to technology in all learning areas, through the use of handheld devices, iPads, cameras, beebots.	Electrical systems Many appliances at home and school need electricity to work. Appliances need to be attached to electricity through a plug and socket or batteries.			
		Fruit salad – chop and slice <i>Growing and Changing - Farm</i> Bake bread <i>Little Red Hen</i>	Cooking and nutrition Select and mix ingredients. Measure using non-standard and standard units-led by an adult. What are healthy and unhealthy foods. Origins of food.			
Key Stage 1	Year 1	Puppets <i>Toys/Childhood (H)</i>	Textiles Templates and joining techniques. Join fabrics, running stitch, glue, staples	Select from and use a range of tools and equipment to perform practical tasks. Select and use a wide range of materials including textiles.	Technical Knowledge : Textiles, Structures, Mechanical Systems, Electrical/Computing and Cooking and Nutrition	Design: Understanding contexts, users and purposes, and generating, developing, modelling and communicating ideas. Make: Planning and Practical skills and techniques. Evaluate: Own ideas and products, existing products and key events and individuals.
		Sandwich <i>Plant/Seasonal Changes (Sc, PSHE)</i>	Cooking and nutrition Picking fruit, preparing fruit – chop, slice, spread Identify main food groups	Use basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.		
		Making Storyboard <i>Toys/Childhood (H)</i>	Mechanical systems Explore and use levers, sliders, moving toys	Explore and use mechanisms in their products.		
	Year 2	Tudor House <i>Great Fire of London (H)</i>	Structures Free-standing Structure Build simple structures, improve structures by making them stronger, stiffer and more stable.	Build structures, exploring how they can be made stronger, stiffer and more stable.		
		Castle – drawbridge and moveable catapult <i>Local study - Tattershall Castle (H)</i>	Mechanical systems Create and use wheels and axles.	Explore and use mechanisms in their products. Select from and use a wide range of materials and components, including construction materials.		
		Pizza <i>Plants (Sc, PSHE)</i>	Cooking and nutrition Growing and preparing vegetables Cut, grate, peel and chop to make a dish from a different country. Recognise the need for a variety of food in a diet.	Use basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.		
Lower Key Stage 2	Year 3	Cook well, eat well – potatoes <i>The Stone Age (H)</i>	Cooking and nutrition Methods of cooking Combine a variety of ingredients and use a range of cooking techniques. Describe what a balanced diet is.	Understand the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.	Technical Knowledge : Textiles, Structures, Mechanical Systems, Electrical/Computing and Cooking and Nutrition	Design: Understanding contexts, users and purposes, and generating, developing, modelling and communicating ideas. Make: Planning and Practical skills and techniques. Evaluate: Own ideas and products, existing products and key events and individuals.
		Stone Age Pouch <i>The Stone Age (H)</i>	Textiles Join fabrics, use a simple pattern Explore joining techniques: running stitch and back stitch 2D to 3D product	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], 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		

Design and Technology overview – September’23

Upper Key Stage 2	Year 4	Packaging – Broken Biscuits <i>Nets of 3D shapes (Maths)</i>	Structures Packaging for biscuits – create a shell structure, and improve the structure by making them stronger, stiffer and more stable. Transparent material to see the contents (biscuits)	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Select from a wide range of tools and equipment to perform practical tasks accurately. Select from and use a wide range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities.
		Bread <i>The Anglo-Saxons (H)</i>	Cooking and nutrition Bread (Dampers) Measuring, weighing, kneading, properties of ingredients Make healthy choices and explain why.	Understand the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
		Night Light <i>Electricity (Sc)</i>	Electrical Simple and Complex circuits and switches	understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
		Shaduf <i>The Ancient Egyptians (H)</i> <i>Oceans, rivers and the Water Cycle (G)</i>	Mechanical systems Collecting water from the River Nile. Create and use simple levers, and linkages. Use these in their products.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Select from a wide range of tools and equipment to perform practical tasks accurately. Select from and use a wide range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities. Understand and use mechanical systems in their products.
	Year 5	Parthenon – comparison to Cathedral (Architecture) <i>The Greeks (H) / local study – Lincoln Cathedral</i>	Structures Create a model Parthenon – frame structure. Build a framework using a range of materials to support mechanisms.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Select from a wide range of tools and equipment to perform practical tasks accurately. Select from and use a wide range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities. Understand and use mechanical systems in their products.
		Moon Buggy <i>Space (S)</i>	Mechanical Create and use gears and pulleys. Pneumatic systems – select and use the most appropriate mechanical system for a product	Understand and use mechanical systems in their products.
		Eat the Seasons – Soup <i>Trade and Farming (G)</i>	Cooking and nutrition Seasonality, combine food ingredients appropriately. Evaluate meals and consider if they contribute towards a healthy diet	Understand the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
Year 6	Fairground <i>Electricity (Sc)</i>	Electrical/Computing Select most appropriate materials and frameworks, explaining what makes them strong. Build models which incorporate switches to turn off and on, design products incorporating the most appropriate electrical system More complex switches and circuits (including programming, monitoring and control)	Select from a wide range of tools and equipment to perform practical tasks accurately. Select from and use a wide range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities. Understand and use electrical systems in their products	
	Three Course Meal (Culture) <i>International Schools Link</i> <i>Energy & sustainability, and climate change (G)</i>	Cooking and Nutrition Three Course Meal (Celebrating culture) Use appropriate tools and equipment, weighing and measuring accurately with scales. Explain how ingredients are grown, reared, caught, and processed.	Understand the principles of a healthy and varied diet. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught, and processed.	
	Bunting – VE Party <i>The Impact of War (H)</i>	Textiles Combining different fabric shapes (including computer-aided design) Create 3D product using arrange of materials and sewing techniques, combine fabrics to make a product of high quality, checking for snags and glitches	Apply their understanding of computing to programme, monitor and control their products. Select from and use a wide range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities.	