



Design Technology Overview

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	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Pre-3			Observational skills KLP <ul style="list-style-type: none"> Notice detailed features of objects in their environment. Sound and colour KLP <ul style="list-style-type: none"> Create sounds by rubbing, shaking, tapping, striking or blowing. Enjoy and respond to play with colour in a variety of ways, for example combining colour. 		Express ideas/ intent KLP <ul style="list-style-type: none"> Experiment with ways to enclose a space, create shapes and represent actions, sounds and objects. Uses 3D and 2D structures to explore materials and/or to express ideas. 	
Nursery	Exploration of colour, material, texture, movement KLP <ul style="list-style-type: none"> Explore colour and materials freely on workbench and when using malleable items - roll, squash, pinch, cut. Start to describe textures e.g. rough, smooth, hard, soft. Feel and use how things work and explore forces outdoors. 		Joining and enclosing KLP <ul style="list-style-type: none"> Choose workbench materials, tools and joining technique to develop own ideas. In pretend play, build stories around resources, including small world and enclosing spaces. Start to notice detail, colour, line and movement in constructing. 		Detail of line, texture and movement KLP <ul style="list-style-type: none"> Notice detail, colour, line and movement in constructing animal dens. Choose workbench materials, tools and joining technique to add texture. Pretend play cont. building stories around resources available including small world and enclosing spaces. Explore 2D closed space and continual lines. 	
Reception	Shape in buildings KLP <ul style="list-style-type: none"> See and use mathematical language for 2D and 3D shapes in buildings. Use a range of construction kits to make a building with key features. Explore basic textures, collages, experiment with materials e.g. masking tape, play dough. 	Links between 2D and 3D KLP <ul style="list-style-type: none"> Observe 3D line and make spiders and web patterns using string, pipe cleaners. Explore and talk about the techniques of straight folds, cuts and halving. Patterns in sand: pouring through holes and explain their techniques (mould, pinch, dig and pile-up). Further sensory modelling using natural materials to make pattern and pictures. 	Bridges KLP <ul style="list-style-type: none"> Fold, bend and curve paper to explore shape of bridges. Build walls in different patterns using construction kits. Observe similarities and differences of local and famous bridges. Talk about strength of materials metal, wood, stone. 	3D shape and state in nature KLP <ul style="list-style-type: none"> Making 3D flowers. Observe process of growth of foods. Change and talk about state of matter through cooking processes. (hard/soft/ solid/ liquid). Movement on and in water KLP <ul style="list-style-type: none"> Make boats using containers and solid objects. Move objects on water by blowing, or using flow/gradient. Explore the story of Archimedes and his Bath. 	Layering materials KLP <ul style="list-style-type: none"> Controlled tearing and layering paper and materials: textures and collage. Building wormeries: change in matter of earth materials -soil gravel and sand. Explain the process of layering. 	Large and small design Large Scale Props KLP <ul style="list-style-type: none"> Group builds of castle structures (to role play narratives). Explain their plan and process and adapt. Delicate materials KLP <ul style="list-style-type: none"> Daisy chains and leaf chains. Making paper dolls/ characters, cutting in detail.
Year 1	Sculpture/3D work KLP: <ul style="list-style-type: none"> Join simple objects together to make structures. Select appropriate tools for joining. Use junk modelling materials. 			Make a floating boat KLP: <ul style="list-style-type: none"> Create a boat that floats. Plan and make a boat. Evaluate a structure. Use tools effectively for cutting and joining. Develop their designs through discussions and observations. 		Food and nutrition KLP: <ul style="list-style-type: none"> Explore the understanding that food can come from different places. Make a fruit salad. Know how to prepare simple dishes safely and hygienically, without using a heat source.

	<ul style="list-style-type: none"> Plan, design and make models. 					<ul style="list-style-type: none"> Follow procedures for personal hygiene.
Year 2	Rainmakers KLP: <ul style="list-style-type: none"> Know what a rainmaker is (Lila story). Use of suitable materials for an instrument. Design of an instrument. Transferring a design to the finished product. 	Festival of light KLP: <ul style="list-style-type: none"> Appropriate colour and decoration for a Diwali light. How to design and make a Diwali light. How to design and make a Christingle. Joining and using a variety of equipment to make a product against a design criteria. 	Building a house KLP: <ul style="list-style-type: none"> Purposeful, functional, appealing products based on design criteria. Generating, developing, modelling and communicating ideas through talking, drawing, templates, mock-ups and ICT. Different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable 	Queen's carriage KLP: <ul style="list-style-type: none"> Selecting appropriate tools, equipment, techniques and materials from a wide range. Know how to use and explore mechanisms e.g. levers, sliders, wheels and axels in a product. Choose appropriate tools, equipment, techniques and materials from a wide range. 	Board games KLP: <ul style="list-style-type: none"> Know how to measure, mark out, cut and shape materials using a range of tools. Evaluation and assessing existing products and those that he/she has made using some design criteria. 	Healthy eating KLP: <ul style="list-style-type: none"> Know what he/she eats at home and begin to discuss what healthy foods are Understand where some food comes from and give examples of food that is grown. Know how to use simple tools with help to prepare food safely. Understand the need for a variety of food in a diet. Understand that all food has to be farmed, grown or caught. Know how to use a wider range of cookery techniques to prepare food safely.
Year 3		Design and make a clay volcano KLP: <ul style="list-style-type: none"> Use the medium of clay to make a model of a volcano. Use the medium of paint to add colour to their volcano. Understand why and how they seal the volcano ready for erupting.		Design and Make a Greek pot KLP: <ul style="list-style-type: none"> Identify the style and features of ancient Greek Pottery. Design and decorate a pot in the ancient Greek style. Evaluate their finished artwork and others fairly. 	Design and make their periscopes KLP: <ul style="list-style-type: none"> Understand what a periscope is. Design our own periscope. Make our own periscopes from our designs. Use and evaluate our periscopes. 	Design and make a European food dish KLP: <ul style="list-style-type: none"> Examine, describe and categorise a variety of bread-based products. Design a balanced healthy pizza. Make a food product based on a design. Evaluate a food product based on a design.
Year 4		Bridge blunder KLP: <ul style="list-style-type: none"> Construct a bridge that will hold a given weight based on given criteria. Produce a plan and explain it to others. Select the most appropriate techniques (cut/shape/join/finish) and tools to make their bridge. Measure carefully so as to make sure they have not made mistakes Come up with solutions to problems as they happen. 	Lighthouse or windmill models KLP: <ul style="list-style-type: none"> Make a product that uses simple circuits to illuminate or create motion. Generate, develop and clarify ideas using discussion and labelled sketches. Select the most appropriate materials, techniques (cut/shape/join/finish) and tools to make a product. Make accurate measurements. 	Egyptian tombs/pyramids KLP: <ul style="list-style-type: none"> Make a model pyramid or tomb that includes at least one hidden compartment. Select the most appropriate materials, techniques (cut/shape/join/finish) and tools to make a product. Measure accurate enough to ensure that everything is precise. Come up with solutions to problems as they happen. 		

		<ul style="list-style-type: none"> Explore how to strengthen, stiffen and reinforce their bridge. Suggest some improvements and say what was good and not so good about their original design. 	<ul style="list-style-type: none"> Come up with solutions to problems as they happen. Apply their understanding of how to strengthen, stiffen and reinforce their more complex structure. Explain how they can improve their original design. 	<ul style="list-style-type: none"> Evaluate appearance and function against the original criteria. 		
Year 5	Runes and weaving KLP: <ul style="list-style-type: none"> Use subjects, themes and symbols to demonstrate understanding and communicate intended meaning in artwork. Use the natural environment to recreate Anglo-Saxon building techniques. To improve mastery of art and design techniques including drawing, painting and sculpture, with a range of materials, e.g. pencil, charcoal, paint, clay. Design purposeful, functional, appealing products for themselves and other users based on design criteria. Select from and use a wide range of materials and components including construction materials, textiles and ingredients according to their characteristics. 		Victorian dolls houses KLP: <ul style="list-style-type: none"> Use images and research to create designs from a Victorian home. Use research of architecture to create the outside of a Victorian home. Select from and use a range of tools and equipment to perform practical tasks, e.g. 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. 	Moon buggy (Invention Convention) KLP: <ul style="list-style-type: none"> Design purposeful, functional, appealing products for themselves and other users based on design criteria. Select from and use a wide range of materials and components including construction materials, textiles and ingredients according to their characteristics. 	Rainforest biome KLP: <ul style="list-style-type: none"> Use images and research to create a design showing a rainforest biome. Use a range of materials tools and equipment to perform practical tasks, e.g. 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. 	
Year 6	Mayan masks KLP: <ul style="list-style-type: none"> Research the historical factors that link to their design. Consider culture and society in their designs. Justify and evaluate their plan. Adapt plans, tools and materials if required. Use tools and materials precisely to shape clay. A healthy sandwich KLP: <ul style="list-style-type: none"> Use market research to inform plans. Work within constraints. Follow and refine their plans. Justify and evaluate their plan. 		Viking jewellery KLP: <ul style="list-style-type: none"> Consider culture and society in their designs. Use tools and materials precisely to shape clay. Adapt plans, tools and materials if required. Viking long boats KLP: <ul style="list-style-type: none"> Research the historical factors that link to their design. Follow and refine their plans. Adapt plans, tools and materials if required. Use tools and materials precisely and safely (household materials). 	WW2 Anderson shelters KLP: <ul style="list-style-type: none"> Research the historical factors that link to their design. Follow and refine their plans. Adapt plans, tools and materials if required. Use tools and materials precisely and safely (household materials). Discuss whether it is fit for purpose. 	Biome shoebox KLP: <ul style="list-style-type: none"> Creating miniature biomes using a range of carefully selected materials to represent a chosen biome. Design, plan and improve Review and evaluate, identifying successes and points for improvement 	

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| | <ul style="list-style-type: none">• Adapt plans, tools and materials if required.• Use tools and materials precisely and safely i.e. knives to cut, spread and slice.• Taste test and evaluate their final product. | | | | |
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