Wallsend Jubilee Primary School
Skills Progression: Design Technology

Strands	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Plan and think ahead about how they will explore or play with objects.	Develop their own ideas and then decide which materials to use to express them. Can take a simple resource and create a planned model which has a particular purpose. . Ask questions to find out more and to check they understand what has been said to them.	To design products that have a clear purpose and are appealing for themselves. To explore objects and designs to identify likes and dislikes. Develop and communicate their ideas through talking. Model their ideas through drawing.	Design purposeful, functional and appealing products for other users based on design criteria. To explore objects and designs and make suggestions of improvements to the existing design. Generate, develop and communicate their ideas through templates. Model their ideas through ICT.	Begin to draw on their own experience to help generate ideas and develop design criteria. Design innovative products that have a clear purpose and intended user. Generate, develop model and communicate their ideas through discussion and annotated sketches.	Begin to draw on their own experience and research to help generate ideas and develop design criteria. To explore some of the great designers in the areas being studied and use their work to generate ideas for new designs. Design innovative and appealing products that have a clear purpose and intended user. Generate, develop model and communicate their ideas through discussion and cross-sectional diagrams.	Identify a purpose and establish a criteria for a successful product. Design innovative and functional products that are fit for purpose and have an intended user. Generate, develop model and communicate their ideas through discussion, exploded diagrams and prototypes.	Begin to use research and develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose. Generate, develop model and communicate their ideas through discussion and computer-aided design.
Make	Realises tools can be used for a purpose and begins to use these with adult support. Use one handed tools and equipment for example making snips in paper with scissors. Explores using different joining techniques. Create structures on a large and small scale.	Join components and materials in a range of ways. Combine malleable materials with loose parts to create a planned structure, and to articulate the features of it. Build more complex structures on a small and large scale including towers and enclosures, both indoors and outdoors, ascribing	Select from and use a range of tools and equipment to perform practical tasks e.g. scissors, hole punch and stapler. Select from and use a wide range of materials including construction materials according to their characteristics. Begin to join materials using a variety of temporary methods eg. masking tape.	Select from and use a range of tools and equipment to perform practical tasks. Demonstrate how to cut, shape and join fabric to make a simple product using basic sewing techniques. To measure and mark out to the nearest centimetre and demonstrate a range of cutting, shaping and joining techniques. Select from and use a wide range of materials including	Select from and use a range of tools and equipment to perform practical tasks eg. nailing and screwing. Select from and use a wider range of materials and components, including construction materials and ingredients according to their functional purpose. To select appropriate joining techniques.	Select from and use a range of tools and equipment to perform practical tasks eg. cutting and gluing and sewing. Select from and use a wider range of materials and components, including textiles and ingredients, according to their functional properties and aesthetic qualities. To select appropriate joining techniques.	Select from and use a range of tools and equipment to perform practical tasks eg. cutting, nailing, screwing, filing, and sanding. Select from and use a wider range of materials and components, including construction materials and ingredients, according to their functional properties and aesthetic qualities.	Select from and use a range of tools and equipment to perform practical tasks accurately eg.cutting, nailing, screwing, filing, sanding and drilling. Select from and use a wider range of materials and components, including construction materials and ingredients according to their functional properties and aesthetic qualities.

	Combine objects like stacking blocks and cups. Put objects inside others and take them out again.	meaning to their structures. Choose the right resources to carry out their own plan.		textiles and ingredients, according to their characteristics.				
Evaluate	Can say something they like about their model.	Begin to correct their mistakes themselves. Can talk about the process in which their model was made and give reasons why. Show resilience and perseverance in the face of challenge. Review their progress as they try to achieve a goal. Check how well they are doing.	Explore and evaluate a range of existing products.	Evaluate their ideas and products against design criteria.	Investigate a range of existing products. Understand how well products have been designed and made and what materials have been used.	Evaluate their ideas and products (strengths and areas for development) against their own design criteria. Understand how key events and individuals in design have helped shape the world.	Investigate and improve upon existing designs and give reasons for their choices. To disassemble products to understand how they work.	Evaluate their ideas and products (strengths and areas for development) against their own design criteria and consider the views of others to improve their work. To refine work and techniques as the work progresses, continually evaluating the product design.
Technical Knowledge	Combine objects like stacking blocks and cups, put objects inside other and take them out again. Build independently with a range of appropriate resources.	Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. Combine shapes to make new ones - an arch, a bigger triangle etc.	Begin to build structures looking at how they can be made stronger, stiffer and stable. Explore and use mechanisms in their products e.g. sliders.	Explore and use mechanisms in their products e.g. leavers and pivots.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products eg. wheels and axis.		Understand and use mechanical systems in their products. Understand and use electrical systems in their products eg. gears.	Understand and use mechanical systems in their products. Understand and use electrical systems in their products eg. pullys, gears, cams and linkages. Apply their understanding of computing to program, monitor and control their products.
Cooking and Nutrition	Makes playdough alongside an adult, following instructions. Prepare and cook simple	Makes playdough independently, following pictorial instructions. Prepare and cook simple recipes	Understand where food comes from.	Use the basic principles of a healthy and varied diet to prepare dishes.	Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Prepare savoury	Prepare savoury dishes while beginning to understand how to use a range of techniques such as slicing and grating. To be able to follow a	Prepare and cook savoury dishes while beginning to understand how to use a range of techniques such as kneading and baking and apply these using a heat	Understand and apply the principles of a healthy and varied diet Prepare and cook savoury dishes while understanding how to

	recipes such as cakes, biscuits and soup alongside an adult, following their instructions. Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.	such as cakes, biscuits and soup alongside an adult, following instructions and discussing the process. Uses a range of techniques such as peeling, chopping, mixing with adult supervision. Is able to use own experiences of planting and harvesting to understand that some food comes from the ground. Talk about the differences between materials and changes they notice e.g heating and melting.			dishes while beginning to understand how to use a range of techniques such as peeling, chopping and mixing.	recipe.	source where appropriate. To be able to create a recipe.	use a range of techniques such as slicing, chopping, mixing, peeling, grating, kneading and baking and apply these using a heat source where appropriate. To create and refine recipes with thought to cost and health and demonstrate a range of baking and cooking techniques.
Organisation and Communication			Design and make toy including a mechanism – Toys/Spring Create a strong bridge – My Local Area/UK/Summer Understand where food comes from – My Home and School/Autumn	Design a patchwork blanket to be displayed in school/care home/nursery– Our World/Spring Design and create a savoury picnic suitable for the seaside – Seaside/Summer Design and make an item that uses a pivot and leaver mechanism – Autumn	Create a pyramid structure - Ancient Egyptians/Spring Design a Stone Age meal for a specific season (seasonality) – The Stone Age/Autumn Create an item using mechanical systems eg. a pulley. – UK/Summer	Design and sew clothing for a peg doll – Victorians/Spring Follow a recipe to make an Italian Salad – Romans/Summer Autumn	Bake Greek bread – Greeks/Autumn Create a car using mechanisms- European/Summer Spring	Design and make a bridge that moves and includes a light – Local Study/Summer Create and refine a recipe – America/Autumn Spring
Overarching vocabulary	Build, tools, scissors, stapler, hole punch, materials, structure ,shape, make, prepare, cook, healthy, stronger, stiffer, cut, join.		Communicate, design, evaluate, mechanism, tools, healthy, structure, stronger, stiffer, stable, improve, generate, finishing, sewing, templates, join, cut.		Experience, research, generate, develop, techniques, peeling, cutting. Evaluate, reinforce, criteria, recipe, materials, functional, appealing, aesthetics, purpose, audience, mechanism, seasonality.		Design, generate, criteria, slicing, chopping, mixing, peeling, grating, kneading, baking, recipe, aesthetics, improve, healthy and varied diet, heat source, programme, mechanisms, electricals., innovative, computer aided design, components.	