

Non-negotiable Knowledge Technology

Year Group	Unit One	Unit Two	Unit Three
Early Years	<p>Children will develop a range of skills from the four areas of learning:</p> <p>Personal, social and emotional development: Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them.</p> <p>Physical Development: Progress towards a more fluent style of moving, with developing control and grace. • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. Use a range of small tools, including scissors, paintbrushes and cutlery.</p> <p>Understanding the World: Explore how things work.</p> <p>Expressive Arts and Design: Explore, use and refine a variety of artistic effects, to express their ideas and feelings. • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Create collaboratively, sharing ideas, resources and skills. 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.</p>		
Year 1	<p>Dips and Dippers - Cooking and Nutrition</p> <ul style="list-style-type: none"> I can explain ideas about how to eat a healthy and varied diet. I can give a simple evaluation of a product by explaining my likes and dislikes. I can use kitchen equipment safely e.g. cutting tools and prepare dishes. I can name some of the food groups. 	<p>Moving Pictures and Traditional Toys - Mechanisms</p> <ul style="list-style-type: none"> I can explore an existing product. I can draw a simple design. I can make a picture which has at least one moving mechanism. I can make a product with two moving parts. I can evaluate what I did well on my product. 	<p>Creating Paper Toys - Graphics and Cutting skills</p> <ul style="list-style-type: none"> I can create a template. I can create a simple design to explain what they intend to do. I can create a paper toy with support by folding and cutting and add features using appropriate materials and techniques. I can add an interactive feature for my moving paper toy e.g. split pin, elastic band, puppet.
Year 2	<p>Building Gateshead - Construction</p> <ul style="list-style-type: none"> I can recognise the positives about an existing product and any problems; I can draw and annotate a simple design; With support, build a structure from my building design. I can test my own product for its stability. 	<p>Sensational Salads - Cooking and Nutrition</p> <ul style="list-style-type: none"> I know how to eat a healthy and varied diet. I can use the basic principles of a healthy diet to prepare dishes. I can follow a simple recipe with some guidance. I can work with close adult supervision to use measuring spoons, zesters and juicers to prepare dishes. I understand that some food is grown and some food is caught. 	<p>Fabricate - Design (sewing—running stitch)</p> <ul style="list-style-type: none"> I can judge existing products (clothes for heroines—e.g. Queens) on a simple scale. I can create a simple fabric design. I can work with support to cut out a fabric shape. I can start to demonstrate how to create a basic stitch. I can decorate a piece of fabric.

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Year 3	Home Sweet Home - Design, Sewing <ul style="list-style-type: none"> I can investigate a range of existing products. I can develop a design based around a design criteria. I can use cross stitch and running stitch in my design. I can evaluate my design and make skills and improve these over time. 	The Great Italian Bread Bake Off - Cooking and Nutrition <ul style="list-style-type: none"> I can use my experiences of food ingredients and cooking methods to help generate ideas. I can explain why I have chosen certain foods and processes and link them to their design criteria. I can produce an order of work which includes an annotated diagram and chosen equipment appropriately. I can make and evaluate my bread product. 	Let's Go Fly a Kite - Design and Construction <ul style="list-style-type: none"> I can explain how a small event led to a larger significant event in Design and Technology which helped shape the world. I can use research to create ideas and refine them to develop design criteria. I can build and join strong frame structures and stiffen materials. I can apply my understanding of where and how kites need stiffening.
Year 4	Mechanical Vehicles - Design and Mechanisms <ul style="list-style-type: none"> I can explore mechanical systems. I can draw a simple annotated design. I can start to generate ideas for design criteria. I can make a prototype and finished vehicle which has at least one lever/ linkage mechanism. I can evaluate what I did well on their product and things I could improve. 	Battery Operated Lights - Circuits, Design <ul style="list-style-type: none"> I can explain how technology has helped shaped the world we live in. I can explore and make a series and parallel circuit and follow instructions to make a switch. I can draw a simple annotated design. I can make a product which contains a working circuit to light a bulb. I can use a series of given questions to evaluate their product. 	Edible Garden - Cooking <ul style="list-style-type: none"> I understand the 'eatwell' plate and know which foods they should be eating more and less of. I understand and know where and how a variety of ingredients are grown. I can prepare ingredients safely and hygienically using appropriate kitchen utensils. I can measure ingredients to the nearest millilitre accurately and assemble or cook ingredients.
Year 5	North East Bridges - Design, Construction and Enterprise <ul style="list-style-type: none"> I can evaluate the effectiveness of existing products (e.g. bridges) against a series of criteria. I can use my research to develop my own ideas. I can evaluate make product throughout the design and make process and make changes where necessary. I can construct a bridge that considers the design brief - its functional and aesthetic qualities. I can select appropriate joining techniques. 	Sportswear Design - Textiles <ul style="list-style-type: none"> I can aim my design criteria at a target market. I can use at least two different types of stitches. I can create an accurate paper template. I can measure and mark a sewing and cutting line. I can embellish my design to suit the target market. 	Global Food - Cooking and Nutrition <ul style="list-style-type: none"> I can name some varied ingredients and say which part of the world they come from. I can explain the different food groups on the 'eatwell' plate. I can follow a simple recipe. I can use a wide variety of basic food skills such as peeling, juicing and dicing and some advanced skills such as baking, which enable me to prepare a savoury dish.
Year 6	Dragon's Den Festival Lights - Circuits, Design <ul style="list-style-type: none"> I can explore existing light products - aesthetics and functionality and evaluate them against a set of criteria. I can use my own research to generate a series of workable ideas. I can produce a final light design that incorporates a circuit in series or parallel, a switch and a resistor. I can present my ideas, final design and prototype to an audience and answer questions about my product. 	War Food - Cooking and Nutrition <ul style="list-style-type: none"> I understand what seasonality means. I can name some foods which are grown, reared, caught and processed. I can design simple seasonal recipes using 'home grown' produce inspired by my research of War puddings. I can prepare a range of ingredients hygienically. I can prepare, assemble/cook ingredients. 	Pandora Animals - Design, Textiles, Mechanisms <ul style="list-style-type: none"> I can use their knowledge of the animal and movement made by the cam in the design of their automaton. I can measure, mark out and cut materials accurately and safely to the nearest cm using a wider range of tools and equipment. I can work mainly independently to make a mechanical device, selecting materials to make a framework, handle, cam mechanism and finishing the device. I can use peer feedback and design criteria to help guide the evaluation process.