

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 Tales - 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 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.