



LIMITLESS POTENTIAL

IGNITE PASSION

EMBRACE DIFFERENCE

Design and Technology National Curriculum overview: Year 1

Year Group	Autumn Term	Spring Term	Summer Term
Year 1	<p>Eat More Fruits and Vegetables</p> <ul style="list-style-type: none"> To find out the favourite fruits and vegetables in the class and present the data in a pictogram. To examine, taste and describe a variety of fruits and vegetables. To find out how to handle and prepare a variety of fruits and vegetables. To be able to design a recipe to include fruit and/or vegetables. To be able to make and evaluate a food product based on a design. 	<p>Moving Minibeasts</p> <ul style="list-style-type: none"> To be able to create a sliding mechanism. To be able to use levers and pivots to create a moving mechanism. To be able to use levers and pivots to create a moving mechanism. To be able to create a wheel mechanism. To design a picture with a moving mechanism. To make a minibeast-themed moving picture. To evaluate a moving minibeast picture. 	<p>Stable Structures</p> <ul style="list-style-type: none"> To explore the features of stable structures, including toy car garages. To design and plan a stable structure. To explore a range of materials and make decisions based on the end product. To follow a design plan and make a product. To evaluate products. Design purposeful, functional, appealing products for themselves and other users based on design criteria.
Enrichment Activities	Visit to the local green grocers	Forest school- mini beast hunt	Walk around the local community observing 'stable structures'.



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Design and Technology National Curriculum overview: Year 2

Year Group	Autumn Term	Spring Term	Summer Term
Year 2	<p>Puppets</p> <ul style="list-style-type: none"> • To investigate a range of puppets and their features. • To be able to work with fabric to create a finger puppet. • To develop and practise sewing skills. • To be able to design a glove puppet. • To be able to follow a design to make a puppet. • To be able to evaluate a finished product. 	<p>Vehicles</p> <ul style="list-style-type: none"> • To investigate a variety of vehicles and their uses and features. • To investigate wheels, axles and chassis. • To be able to investigate ways of creating and decorating the body of a vehicle. • To be able to design a vehicle. • To be able to make a vehicle based on a design. • To be able to evaluate a finished product. 	<p>Perfect Pizzas</p> <ul style="list-style-type: none"> • To find out what the favourite pizzas in the class are. • To examine, describe and categorise a variety of bread based products. • To examine, describe and categorise a variety of pizza toppings. • To design a balanced healthy pizza. • To be able to make and evaluate a food product based on a design. • Design purposeful, functional, appealing products for themselves and other users based on design criteria.
Enrichment Activities		Mechanic come into school to talk about car features which help the car to move.	Make a pizza- Pizza express Newcastle



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Design and Technology National Curriculum overview: Year 3

Year Group	Autumn Term	Spring Term	Summer Term
Year 3	<p>Storybooks</p> <ul style="list-style-type: none"> To investigate and evaluate products with lever and linkage systems. To experiment with a range of techniques to create moving mechanisms. To explore and experiment with a range of different fonts and graphic techniques. To be able to plan and design a storybook. To be able to make a storybook with moving mechanisms using a design. To be able to evaluate a finished product. 	<p>British Inventors</p> <ul style="list-style-type: none"> To investigate the invention of the telephone. To investigate the invention of the World Wide Web. To explore how the invention of reinforced concrete works. To investigate the invention of the mackintosh. To reflect on the impacts that inventions have had on our lives. 	<p>Light up Signs</p> <ul style="list-style-type: none"> To investigate and analyse illuminated signs. To understand how LEDs may be used instead of traditional incandescent bulbs in series circuits. To develop ideas for a decorative illuminated sign. To select and use tools, equipment, materials and components to make the enclosure of a decorative illuminated sign. To construct a working circuit with one or more lights, and fit it in a decorative illuminated sign. To investigate ways in which computers can be used to program and control lights in a product.
Enrichment Activities	Make a story book for the whole school.	A visit from an inventor.	Work with families to invent a light up sign for school.



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Design and Technology National Curriculum overview: Year 4

Year Group	Autumn Term	Spring Term	Summer Term
Year 4	<p>Seasonal Stockings</p> <ul style="list-style-type: none"> • To explore and analyse existing products. • To explore different ways to join fabric using sewing skills. • To explore different ways to decorate fabric using sewing skills. • To design a Christmas stocking. • To use sewing skills to make a Christmas stocking. • To evaluate a finished product. 	<p>Making Mini Greenhouses</p> <ul style="list-style-type: none"> • To explore existing greenhouses. • To investigate stable structures. • To investigate materials for making a mini greenhouse. • To design a mini greenhouse. • To make a mini greenhouse. • To evaluate a finished product. 	<p>Seasonal Food</p> <ul style="list-style-type: none"> • To cook using British ingredients available all year round. • To know how seasonal fruits in Britain are grown and processed. • To understand why vegetables form an important part of a healthy and varied diet. • To find out about how seasonally produced meat can form part of a healthy diet. • To know how fish are caught or reared, processed and used in healthy meals. • To show what you have learned about eating seasonal food as part of a healthy, varied diet.
Enrichment Activities	Artist- Sarah Dodds- textiles.	Make a whole school green house.	Visit a chef at work. Fun Little Foodies



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Design and Technology National Curriculum overview: Year 5

Year Group	Autumn Term	Spring Term	Summer Term
Year 5	<p>Building Bridges</p> <ul style="list-style-type: none"> • Know what beams and pillars are and how they are used in bridge construction. • Predict which beams will be strongest from their cross-section. • Test the strength of different beam shapes using paper and card. • Explain what a truss is and how trusses make bridges stronger. • Identify the three types of trusses commonly used in bridge design. • Build a truss bridge spanning a width of 40cm using paper straws. • Use a fair test to evaluate the strength of my truss bridge. • Explain how arches work to make bridges stronger. • Test the arch heights to see which can bear the most load. • Make an arch frame. • Explain how suspension bridges use tension forces to work. • Design, make and evaluate a prototype suspension bridge using a scale of 1:100 according to specific design criteria. 	<p>Chinese Inventions</p> <ul style="list-style-type: none"> • Explain how the invention of paper helped shape the world. • Explain the traditional method for making paper. • Test a variety of types of paper for strength, absorbency, opacity, etc. • Make recycled paper. • Explain how the invention of the compass changed the world. • Explain why kites were first invented and how they were made. • Make a variety of kite prototypes and test their effectiveness. • Design, make and evaluate a kite according to specific design criteria. 	<p>Fashion and Textiles</p> <ul style="list-style-type: none"> • Know that products that are woven together are called textiles. • Know that different textiles have different properties, and can match these to their purpose. • Identify straight stitch, zigzag stitch, whip/blanket stitch, blind stitch, buttonhole stitch and overlock stitch on a variety of ready-made garments. • Describe what the job of a fashion designer entails. • Sew a basting stitch. • Sew a whip stitch. • Sew a hem. • Sew back stitch. • Sew an appliqué decoration. • Use back stitch to embroider. • Know what a pattern piece is and why they are important when designing a garment. • Use pattern pieces to measure, mark, cut and sew fabric. • Sew design elements according to design criteria. • Join two pieces of fabric by hand sewing, using an appropriate stitch. • Evaluate my finished product against a set of design criteria.
Enrichment Activities	Visit Newcastle Quayside to see a variety of bridges.	Little Inventors Competition	



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Design and Technology National Curriculum overview: Year 6

Year Group	Autumn Term	Spring Term	Summer Term
Year 6	<p>Burgers</p> <ul style="list-style-type: none"> To explore different types of burgers and their nutrition facts. To explore how to make burger patties. To explore sauces and side dishes for burgers. To explore burger buns and their suitability. To be able to plan and design a burger to make. To be able to make a burger and evaluate the process. 	<p>Programming Pioneers</p> <ul style="list-style-type: none"> To explain how computers and computer programs are used in a variety of products. To develop ideas for a product with an embedded computer system that controls it. To develop, model and communicate ideas for an embedded system which monitors and controls a door, a room or both. To develop ideas for a product and start to write programs to monitor and control them. To model and communicate ideas, using either prototype models or computer-aided design. To evaluate your design for a computer-controlled system and consider the views of others to improve your work. 	<p>Bird House Builders</p> <ul style="list-style-type: none"> To investigate the purpose and appearance of bird houses. To investigate the materials and features of bird houses and how to draw diagrams. To investigate and practise woodwork skills. To be able to design a bird house for a specific bird. To be able to make a bird house by following a plan. To evaluate, make predictions and promote a completed bird house.
Enrichment Activities	Afternoon café for parents		Build a bird house for Forest School