

Design and Technology long term plan

All projects will be carried out in half term blocks (identified on the long-term plan). For years 1-6 the blocks will consist of 6 or 7 lessons per project.

EYFS and F2 - Continuous Provision - Learning about the world around them

Children will learn about the world around them. Exploring different mechanisms such as how bikes and scooters move. They will also learn about different materials some of their basic properties and begin to investigate simple structures and how to make them. Children will be given the opportunity to experience a range of different food, discussing taste, textures and smells.

KS1

Autumn	
Year 1 (Aut 2)	Year 2 (Aut 1)
Topic - Textiles: Patterns Enquiry Question: What pattern can you sew for a Christmas card? Local Links: Nottingham lace - patterns in lace Curriculum enrichment: To explore different materials and how patterns are made, e.g. lace, tapestry and needlework.	Topic - Mechanisms: sliders and levers Enquiry Question: What is the purpose of moving pictures? Local Links: N/A Curriculum enrichment: Put on a show using moving pictures.

Spring	
Year 1 (Spr 2)	Year 2 (Spr 1)
Topic - Structures: Stability of freestanding structures Enquiry Question: How does playground equipment work? Local Links: Parks in the local area. Curriculum enrichment: Visit a local park/explore schools playground equipment.	Topic - Textiles: Templates and joining techniques Enquiry Question: How are puppets made? Local Links: To work alongside younger children within school. Curriculum enrichment: To use their puppet to tell a story to the EYFS children.
Summer	
Year 1 (Sum 2)	Year 2 (Sum 1)
Topic - Mechanisms: Wheels and axels Enquiry Question: How are shopping trolleys made? Local Links: What do shopping trolley's looks like? Curriculum enrichment: Visit a local shop to research shopping trolleys.	Topic - Food: Preparing fruit and vegetables (including cooking and nutrition requirements for KS1) Enquiry Question: What ingredients can be used to make a healthy smoothie? Local Links: N/A Curriculum enrichment:

To plant and grow vegetables.

KS2

Autumn			
Year 3 (Aut 2)	Year 4 (Aut 1)	Year 5 (Aut 2)	Year 6 (Aut 1)
Topic - Food: Healthy and varied diet (including cooking and nutrition requirements for KS2) Enquiry Question: What can be put into a pita pocket to make it healthy? Local Links: Research local sources of ingredients and products that will be needed.	Topic - Electrical systems: Simple circuits (including switches) Enquiry Question: How do torches work? Local Links: N/A Curriculum enrichment: Electricity hunt: how many things can you find around school that use electricity?	Topic - Textiles: Combining different fabric shapes Enquiry Question: How can we carry our mobile phones and protect them? Local Links: Local textiles factory Curriculum enrichment: Textiles factories	Topic - Structures: Frame Structures (including computer aided design) Enquiry Question: What type of building is used to watch birds in a woodland? Local Links: N/A Curriculum enrichment:

Curriculum enrichment: Meet with the school Kitchen Staff.			Complete a bird watch.
Spring			
Year 3 (Spr 2)	Year 4 (Spr 1)	Year 5 (Spr 2)	Year 6 (Spr 1)
Topic - Structures: Shell structures (including computer aided design) Enquiry Question: What can be used to transport food from the factory to the shop? Local Links: N/A Curriculum enrichment: To experiment with materials to improve strength/rigidity.	Topic - Food: Healthy and varied diet (including cooking and nutrition requirements for KS2) Enquiry Question: What food can you make to promote healthy eating? Local Links: To research ingredients and products that can be: farmed/grown/caught locally. Curriculum enrichment: Healthy food tasting/workshop.	Topic - Electrical systems: Complex circuits (including programming and control) Enquiry Question: How do warning alarms work? Local Links: Local police force Curriculum enrichment: Alarm hunt - how many different types of alarms can be found in school/in the school grounds?	Topic - Mechanisms: Cams, gears or pulleys Enquiry Question: How are sports cars manufactured? Local Links: Great British Sports Cars Ltd. Factory based in Ollerton, Nottinghamshire Curriculum enrichment: Car workshop/research into environmentally friendly materials.
Summer			
Year 3	Year 4	Year 5	Year 6

(Sum 2)	(Sum 1)	(Sum 2)	(Sum 1)
Topic - Textiles: 2D shape to 3D product Enquiry Question: How are pencil cases made? Local Links: Nottingham lace Curriculum enrichment: Experiment with different materials, testing for strength, waterproofness and flexibility.	Topic - Mechanisms: Lever and linkages Enquiry Question: What materials can be recycled? Local Links: Recycling in the local area. Curriculum enrichment: Lever and linkage search around school to find examples from their own environment.	Topic - Food: Culture and seasonality- Spain (including cooking and nutrition requirements for KS2) Enquiry Question: What ingredients are used in traditional Spanish food? Local Links: N/A Curriculum enrichment: Tasting of traditional Spanish food.	Topic - Food: Culture and seasonality- China (including cooking and nutrition requirements for KS2) Enquiry Question: What are the key ingredients in Chinese food? Local Links: N/A Curriculum enrichment: Family event to taste the food that has been made.