

Design and technology

Subject	Quote to lead subject	Intent	Implementation	Impact
DT	<i>Projects we have completed demonstrate what we know. Future projects decide what we will learn.</i> Dr Moshin Tiwana	The intent is to develop an explorative mind that questions, evaluates and builds on ideas to create and enhance their own products. Children will have the opportunity to develop and grow the other learning aspects of their brains in terms of problem solving, designing, mechanics and engineering from the very simple to the complex.	Projects should feel relevant, engaging and accessible to the class. Children will have the opportunity to learn in a practical and explorative way so that they can take what they already know and can have the opportunity to investigate, build, evaluate, assess, re-design, build and evaluate again knowing that their next step will bring them closer to a final product.	Children will be able to discuss their finished product and why it is 'fit for purpose'. They will be able to evaluate it further and explain how/why they might adapt to develop it for another purpose. The impact of this is to provide children with an alternative practice of learning which could produce future engineers,

D&T	Autumn	Spring	Summer
Year 1	Linking of prior learning*	Constructions	Linking of prior learning*
Year 2	Linking of prior learning*	Linking of prior learning*	Cooking healthily
Year 3	Linking of prior learning*	Learning about inventions- the aqueduct. Healthy Eating	Moving Robots
Year 4	Fabric/Sewing	Linking of prior learning*	Linking of prior learning*
Year 5	Linking of prior learning*	Marble run/roller Coaster	Linking of prior learning*
Year 6	Stitching	Cooking	Models – Pulleys/gears

Design & Technology	Developing, planning and communicating ideas	1:2 Begin to draw on their own experience to help generate ideas and research conducted on criteria. 1:3 Begin to understand the development of existing products: What they are for, how they work, materials used	Spring
Design & Technology	Working with tools, equipment, materials and components to make quality products	1: 4 Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products 1:5 Begin to use simple finishing techniques to improve the appearance of their product.	Spring
Design & Technology	Evaluating processes and products	1.1 When looking at existing products explain what they like and dislike about Products and why.	Spring
Design & Technology	Food and Nutrition	1.6 Know how to use techniques such as cutting, peeling and grating. 1.7 Know how to prepare simple dishes safely and hygienically, without using a heat source. 1.8 Explore the understanding that food has to be farmed, grown elsewhere (e.g. home) or caught	Spring
Design & Technology	Developing, planning and communicating ideas	2.1 Develop their ideas through talk and drawings and label parts. Make templates and mock ups of their ideas in card and paper or using ICT. 2.3 Start to generate ideas by drawing on their own and other people's experiences. 2.4 Understand how to identify a target group for what they intend to design and make based on a design criterion.	Summer

Design & Technology	Working with tools, equipment, materials and components to make quality products	2.2 Build structures, exploring how they can be made stronger, stiffer and more stable. 2.5 With help measure, cut and score with some accuracy. 2.6 Start to choose and use appropriate finishing techniques based on own ideas 2.7 Learn to use hand tools safely and appropriately.	Summer
Design & Technology	Evaluating processes and products	2.8 With confidence talk about their ideas, saying what they like and dislike about them.	Summer
Design & Technology	Food and Nutrition	2.9 Understand that all food comes from plants or animals. 2.91 Demonstrate how to use techniques such as cutting, peeling and grating.	Summer
Design & Technology	Developing, planning and communicating ideas	3.4 Understand how well products have been designed, made, what materials have been used and the construction technique. 3.5 Know to make drawings with labels when designing. 3.93 Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	Spring
Design & Technology	Working with tools, equipment, materials and components to make quality products	3.1 Start to understand that mechanical systems such as levers and linkages or pneumatic systems create movement 3.2 Start to understand that mechanical and electrical systems have an input, process and output. 3.3 Know how simple electrical circuits and components can be used to create functional products. 3.7 Start to work safely and accurately with a range of simple tools. 3.8 Start to measure, tape or pin, cut and join fabric with some accuracy.	Spring

Design & Technology	Evaluating processes and products	3.6 Begin to disassemble and evaluate familiar products and consider the views of others to improve them. 3.93 Evaluate the key designs of individuals in design and technology has helped shape the world.	Spring
Design & Technology	Food and Nutrition	3.9 Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. 3.91 Begin to know that to be active and healthy, food and drink are needed to provide energy for the body 3.92 Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'	Spring
Design & Technology	Developing, planning and communicating ideas	4.3 Confidently make labelled drawings from different views showing specific features. 4:4 When planning consider the views of others, including intended users, to improve their work.	Spring
Design & Technology	Working with tools, equipment, materials and components to make quality products	4.1 Now sew using a range of different stitches, to weave and knit. 4.5 Start to join and combine materials and components accurately in temporary and permanent ways. 4.91 Continue to learn how to program a computer to monitor changes in the environment and control their products. 4.92 Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.	Spring
Design & Technology	Evaluating processes and products	4.2 Be able to disassemble and evaluate familiar products and consider the views of others to improve them. 4.6 Start to their work both during and at the end of the assignment. 4.93 Evaluate the key designs of individuals in design and technology has helped shape the world.	Spring

Design & Technology	Food and Nutrition	4.7 Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. 4.8 Know that to be active and healthy, food and drink are needed to provide energy for the body. 4.9 Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' 4:9	Spring
Design & Technology	Developing, planning and communicating ideas	5.3 Use results of investigations, information sources, including ICT when developing ideas 5.4 Draw up a specification for their design- link with Mathematics and Science. 5.8 With growing confidence apply a range of finishing techniques, including those from art and design	Spring
Design & Technology	Working with tools, equipment, materials and components to make quality products	5.1 Understand how mechanical systems such as cams or pulleys or gears create movement. 5.2 Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products 5.5 Begin to measure and mark out more accurately. 5.6 Demonstrate how to use skills in using different tools and equipment safely and accurately with growing confidence cut and join with accuracy to ensure a good-quality finish to the product 5.7 Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT	Spring
Design & Technology	Evaluating processes and products	5.9 Begin to evaluate it personally and seek evaluation from others. 5.91 Evaluate their work both during and at the end of the assignment. 5.95 Evaluate the key designs of individuals in design and technology has helped shape the world.	Spring
Design & Technology	Food and Nutrition	5.92 Start to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. 5.93 Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.	Spring

		5.94 Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.	
Design & Technology	Developing, planning and communicating ideas	6.2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD. 6.1 Know how much products cost to make, how sustainable and innovative they are, and the impact products have beyond their intended purpose. 6.3 Draw up a specification for their design- link with Mathematics and Science. 6.4 Identify the strengths and areas for development in their ideas and products. 6.92 Accurately apply a range of finishing techniques, including those from art and design.	Spring
Design & Technology	Working with tools, equipment, materials and components to make quality products	6.5 Confidently select appropriate tools, materials, components and techniques and use them. 6.6 Construct products using permanent joining techniques. 6.7 Understand how mechanical systems such as cams or pulleys or gears create movement. 6.8 Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products. 6.9 With confidence pin, sew and stitch materials together to create a product. 6.91 Use tools safely and accurately. 6.93 Understand that mechanical and electrical systems have an input, process and output.	Spring
Design & Technology	Evaluating processes and products	6.94 Evaluate against their original criteria and suggest ways that their product could be improved. 6.95 Evaluate their work both during and at the end of the assignment. 6.99 Evaluate the key designs of individuals in design and technology has helped shape the world.	Spring
Design & Technology	Food and Nutrition	6.67 Understand that seasons may affect the food available. 6.98 Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. 6.96 Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	Spring