



Curriculum overview for parents and carers

Design and technology 2026/27

A summary of key Design and technology learning for Reception to Year 6.

	EYFS (Reception)		
Unit 1	Structures	Autumn lesson	Hibernation box Designing and making a hibernation box, the children consider the function of a product.
	Junk modelling Investigating materials and construction techniques through junk modelling while developing scissor skills and an understanding of joining methods. The children make verbal plans, choose suitable materials and solve problems as they design and build their own models.		
Unit 2	Cooking and nutrition	Christmas lesson	Sliding picture Creating a sliding mechanism chimney picture, the children develop their cutting and joining skills.
	Soup Learning about vegetables, where they come from and how they can be prepared for cooking through designing and making a class soup. The children describe and compare the taste of different vegetables, practise cutting skills and evaluate the finished soup product.		
Unit 3	Textiles	Spring lesson	Flower threading Creating their own threading cards, the children practise using scissors and a hole punch.
	Bookmarks Developing fine motor skills through a range of threading activities before moving on to use binka and a needle. The children design a bookmark, considering what to include and why, then follow their designs to complete their bookmarks.		
Unit 4	Structures	Easter lesson	Hanging decoration Designing a hanging egg decoration, the children make purposeful choices about decoration.
	Boats Investigating the properties of materials through water play to discover which materials are waterproof and whether they float or sink. The children evaluate different boats before applying their understanding to design and make a boat that is waterproof and able to float.		
		Summer lesson	Rainbow salad Researching, designing and making a colourful and healthy salad.

	Year 1		
Autumn 1	Mechanisms Matching slider game Exploring different types of mechanisms used in products, with a focus on how sliding mechanisms create movement. Pupils investigate simple paper sliders before designing and making a game that uses two sliding mechanisms in a mock-up and final product.	Autumn 2	Structures Stable structures Investigating stable shapes and using an understanding of balance to discover how wide or heavy bases improve stability in freestanding structures. Pupils apply their understanding by designing and making a fun, stable pencil pot for a Year 1 pupil.
Spring 1	Textiles Simple stitches Examining fabrics, practising basic sewing techniques and identifying how different materials are made from threads. Pupils learn how to thread a needle and sew simple stitches before designing and creating a piece of decorative bunting.	Spring 2	Cooking and nutrition Smoothies Examining and taste-testing different fruits and vegetables to identify and compare ingredients. Pupils select ingredients for a smoothie before making their product and designing accompanying packaging.
Summer 1	Mechanisms Wheels and axles Developing an understanding of how wheels, axles and axle holders work while practising cutting straight and curved shapes with scissors. Pupils problem-solve to improve their wheel designs before designing, building and evaluating a pull-along toy against design criteria.	Summer 2	An opportunity for pupils to: • Celebrate achievements in D&T with a gallery of their products. • Take part in an invention challenge with scrap and recycled materials. • Go on an extracurricular trip. • Complete any unfinished units or projects.

	Year 2		
Autumn 1	Cooking and nutrition	Autumn 2	Mechanisms
	Balanced diet Developing an understanding of what makes a balanced diet through exploring food groups and tasting different ingredient combinations. Pupils use their findings to design and make a healthy wrap containing a balance of protein, vegetables and dairy ingredients.		Levers Examining different types of levers and how they work. Pupils identify pivots and levers on various mechanisms. They create their own levers using appropriate materials and notice how levers make some tasks easier.
Spring 1	Textiles	Spring 2	Mechanisms
	Pouches Developing basic sewing skills by learning how to create templates, cut fabric accurately and sew a running stitch. Pupils apply these techniques to design and make a simple pouch using fabric and hand-stitching methods.		Fairground wheel Investigating how rotating structures work by researching existing fairground wheels and considering how different components fit together. Pupils select suitable materials and develop cutting and joining skills to design and create a functional fairground wheel that rotates and stands freely.
Summer 1	Structures	Summer 2	
	A chair for a bear Investigating strong shapes and the properties of stiff and flexible materials by designing a chair inspired by the story 'There's a Bear on My Chair'. Pupils apply their understanding to build a suitable chair for the bear using appropriate materials and construction techniques.		An opportunity for pupils to: • Celebrate achievements in D&T with a gallery of their products. • Take part in an invention challenge with scrap and recycled materials. • Go on an extracurricular trip. • Complete any unfinished units or projects.

Year 3			
Autumn 1	Structures	Autumn 2	Mechanical systems
	Product packaging Exploring how 3D shell structures are created from nets and used in packaging, pupils evaluate what makes good packaging and follow a simple design criteria to create their own.		Making a moving monster Exploring pivots and linkage mechanisms through designing and making a moving monster toy from strips of cards and split pins. Pupils develop their understanding of levers to produce linkage systems.
Spring 1	Digital world	Spring 2	Textiles
	Wearable technology Designing and programming light-up wearable technology for use in low-light conditions. Pupils develop code to make products flash, incorporating a light sensor.		Cross stitch and appliqué: Cushions or Egyptian collars Developing sewing and decorative textile skills using cross stitch and appliqué techniques. Pupils apply their understanding to design, decorate and assemble their own cushion or Egyptian collar using a range of fabric and stitching methods.
Summer 1	Cooking and nutrition	Summer 2	Mechanical systems
	Eating seasonally Discovering where and when fruit and vegetables are grown by learning about seasonality in the UK. Pupils respond to a brief by designing a seasonal tart using ingredients harvested in the UK during May and June.		Pneumatic toys Investigating how compressed air can create movement within a mechanism and be used in a working pneumatic toy. Pupils use different types of diagrams during the design process before designing and building a toy with a moving pneumatic part.

	Year 4		
Autumn 1	Cooking and nutrition	Autumn 2	Structures
	Adapting a recipe Adapting a simple biscuit recipe for a chosen target audience. Pupils work collaboratively to select suitable ingredients, manage a budget for overheads and ingredients, and create a biscuit that meets specific design criteria.		Helmets Investigating shell structures and how they can be strengthened to protect or contain objects and people. Pupils apply layering techniques to design and make a helmet for a specific user.
Spring 1	Textiles	Spring 2	Mechanical systems
	Fastenings Designing and creating a book sleeve and exploring a range of fastening techniques. Pupils select the most suitable fastening for their design by considering strength, function and suitability for purpose.		Mechanical cars Exploring mechanical systems by building and testing prototype cars to identify effective design features. Pupils conduct market research, create design criteria and evaluate products from a customer perspective before designing their own mechanical car kit.
Summer 1	Digital world	Summer 2	Electrical systems
	Mindful moments timer Researching, designing and prototyping a Micro:bit timer. Pupils analyse existing products and apply programming and branding techniques to create a personalised timer that meets user needs.		Exploring electrical products Investigating electrical components and circuits and how they are used in everyday products to improve safety and convenience. Pupils build simple circuits with switches before designing their own electrical product using a cross-sectional diagram.

Year 5			
Autumn 1	Electrical systems	Autumn 2	Digital world
	Wobble bots Building on existing knowledge of circuits by introducing motors and exploring how they create movement in products. Pupils investigate wobble mechanisms before designing and developing a wobble bot tailored to a specific user's needs.		Monitoring devices Exploring programmable technology and 3D design by creating a Micro:bit animal monitoring device that responds to temperature changes. Pupils develop CAD skills by learning to use the Tinkercad interface and tools before designing and improving their product.
Spring 1	Mechanical systems	Spring 2	Textiles
	Gears and pulleys Investigating the history, mechanics and uses of gears and pulleys. Pupils build a gear and pulley mechanism before applying their understanding to design an eco-bike.		Stuffed toys Developing textile and sewing skills by designing and making a stuffed toy using fabric and decorative techniques. Pupils practise blanket stitch, create fabric details and assemble the components of their finished toy.
Summer 1	Structures	Summer 2	Cooking and nutrition
	Bridges Exploring different bridge designs and how frame structures can be strengthened. Pupils apply accurate measuring, marking and cutting skills while testing a range of bridge-strengthening techniques.		Developing a recipe Considering how recipes can be adapted to improve nutritional value by modifying a traditional Bolognese sauce. Pupils cook their improved recipe and design packaging to meet specific design criteria.

Year 6			
Autumn 1	Mechanical systems	Autumn 2	Textiles
	Automata toys Applying woodworking skills by constructing an automaton with moving parts and mechanisms. Pupils measure and cut materials, assemble a frame, select suitable cams and design characters to create an interactive shop display.		Bags Creating a bag for a specific user using pattern piece templates. Pupils select and sew functional and decorative features, including pockets and fastenings, to meet the needs of their design brief.
Spring 1	Cooking and nutrition	Spring 2	Structures
	Come dine with me Developing food preparation and evaluation skills by researching and preparing a three-course meal. Pupils investigate the journey of a main ingredient from 'farm to fork', taste-test and score their dishes, and write a recipe for a favourite meal.		Playground pioneers Investigating how playground structures are designed and reinforced using triangulation and computer-aided design. Pupils work within a set of constraints to design and build a prototype structure with a wooden frame and a high-quality finish.
Summer 1	Electrical systems	Summer 2	Digital world
	Steady hand game Developing knowledge of electrical circuits by designing and creating a steady hand game with an operational buzzer system. Pupils use nets to construct the base before building and testing a circuit that activates when the handle touches the wire.		Navigating the world Programming a navigation tool to produce a multifunctional device for trekkers. Pupils combine 3D virtual objects to form a complete product concept using 3D computer-aided design modelling software.