Curriculum overview for parents and carers

Design and technology 2026/27

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

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	EYFS (Reception)
Unit 1	**Structures** **Junk modelling** Exploring materials through junk modelling, the children develop their scissor skills and awareness of different materials and joining techniques. The children begin to make verbal plans and material choices before starting and problem solve while making their model.
Unit 2	**Textiles** **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 and then follow their designs to complete their bookmarks.
Unit 3	**Structures** **Boats** Considering the properties of materials through water play, the children discover which materials are waterproof and whether they float or sink. The children evaluate a variety of boats and use their new-found knowledge to design and make a boat that is waterproof and floats.

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	Year 1
Autumn	**Structures** **Stable structures** Examining stable shapes using innate sense of balance, pupils discover ways to make freestanding structure more stable with a wide or a heavy base. Design and make a fun and stable pencil pot for a Year 1 pupil.
Spring	**Textiles** **Simple stitches** Recognising fabrics as materials made from different types of threads. Pupils also learn how to thread a needle and make simple rows of stitches in embroidery fabric, then apply these skills to design and stitch a design onto a piece of bunting.
Summer	**Mechanisms** **Wheels and axles** Learning how to use scissors to cut straight and rounded edges, pupils develop an understanding of how wheels, axles and axle holders work and problem-solve to improve their original wheels. They also design and build pull-along toys and evaluate them against design criteria.

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	Year 2
Autumn	**Cooking and nutrition** **Balanced diet** Learning about what constitutes a balanced diet, pupils taste test ingredient combinations from different food groups. They then design a wrap of their choice which includes a healthy mix of protein, vegetables and dairy.
Spring	**Mechanisms** **Levers** Investigating 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.
Summer	**Structures** **A chair for a bear** Using the story of 'There's a Bear on My Chair' as inspiration, pupils design and make a new chair for the bear in the story. They learn about strong shapes and stiff and flexible materials to help make choices when building their chairs.

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	Year 3
Autumn	**Structures** **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.
Spring	**Digital world** **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.
Summer	**Cooking and nutrition** **Eating seasonally** Learning about seasonality, pupils discover when and where fruits and vegetables are grown in the UK. They respond to a design brief to design a seasonal food tart using ingredients harvested in the UK in May and June.

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	Year 4
Autumn	**Cooking and nutrition** **Adapting a recipe** Working in groups to adapt a simple biscuit recipe, pupils create a biscuit suited to a chosen target audience. They ensure that their creation comes within a given budget of overheads and ingredients.
Spring	**Mechanical systems** **Mechanical cars** After building three prototype mechanical cars, pupils select the best features to design their final product: a mechanical car kit. They create design criteria, conduct competitor market research and act as customers to provide feedback.
Summer	**Electrical systems** **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.

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	Year 5
Autumn	**Electrical systems** **Wobble bots** Building on their existing knowledge of circuits, pupils explore motors and how they can create movement. Pupils also experiment with different wobble bot components to design and develop a new product tailored to a specific user's needs.
Spring	**Mechanical systems** **Gears and pulleys** Investigating the history, mechanics and uses of gears and pulleys. Pupils construct a gear and pulley system and design an eco-bike that utilises energy from an exercise bike for practical work.
Summer	**Structures** **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.

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	Year 6
Autumn	**Textiles** **Bags** Designing bags for a specific user using pattern piece templates. Pupils choose features that are aesthetic or functional, such as fastenings or pockets, to add to their designs. They then sew their chosen features onto the bags.
Spring	**Cooking and nutrition** **Come dine with me** After preparing a three-course meal, pupils taste-test and score their food. They also research the journey of their main ingredient from 'farm to fork' and write a favourite recipe.
Summer	**Digital world** **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 in 3D computer-aided design modelling software.

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