

St Vincent's Catholic Primary School

Design and Technology Curriculum (EYFS–Year 6)

At St Vincent's, our Design and Technology curriculum encourages creativity, imagination, and innovation. Through practical projects, pupils design and make purposeful products that solve real problems. They learn to evaluate ideas, test materials, and refine outcomes while developing resilience, critical thinking, and collaboration. Our curriculum connects learning to real-world contexts, showing pupils how designers, engineers, and chefs influence the world around us.

Intent

Our intent is to inspire pupils to become resourceful, innovative, and enterprising. Through a knowledge-rich and practical curriculum, children learn to think critically and work creatively to design and make solutions. Design and Technology at St Vincent's is underpinned by our three school principles:

- Exemplary Behaviour – calm, purposeful classrooms where creativity and problem-solving flourish.
- Knowledge-Rich Curriculum – carefully sequenced units that build knowledge of materials, mechanisms, and nutrition.
- Explicit Teaching – clear modelling of processes within the design–make–evaluate cycle.

Implementation

Our curriculum is structured around the design–make–evaluate process. Each project begins with research and planning, moves to hands-on making, and ends with testing and reflection. Pupils learn about real designers, engineers, architects, and chefs to inspire their thinking, and they apply cross-curricular skills from Maths, Science, and Art. Projects progress from guided making in the early years to independent innovation in Upper Key Stage 2.

Impact

By the end of Year 6, pupils will have developed technical competence and creative confidence. They will be able to design, build, and evaluate their work thoughtfully, understanding how products are shaped by user needs and aesthetic choices. Pupils will appreciate how Design and Technology connects to future careers in engineering, architecture, product design, and food technology.

Long-Term Plan (EYFS–Year 6)

Year Group	Autumn Term (Structures & Mechanisms)	Spring Term (Food Technology)	Summer Term (Textiles / Electrical Systems)
EYFS	Building and Creating – exploring construction with blocks and recycled materials. Skills: joining, balancing, imagining structures.	Exploring Food – preparing fruit and vegetables. Skills: cutting safely, tasting, naming foods, hygiene awareness.	Designing and Making – constructing models inspired by everyday objects. Skills: planning, selecting tools, creativity.
Year 1	Moving Pictures – designing levers and sliders for story scenes. Skills: cutting, assembling, testing simple mechanisms.	Fruit Salads – exploring healthy eating and preparing food inspired by chefs like Jamie Oliver. Skills: peeling, cutting, mixing safely.	Textile Faces – sewing simple fabric pieces to create character puppets. Skills: threading, joining, decorating fabric.
Year 2	Bridges and Towers – designing stable structures inspired by Isambard Kingdom Brunel. Skills: building strength, joining materials, testing stability.	Balanced Diets – preparing sandwiches and wraps inspired by nutritional principles. Skills: measuring, spreading, combining ingredients.	Moving Vehicles – designing toy cars using wheels and axles. Skills: assembling, testing movement, evaluating performance.
Year 3	Castles and Catapults – creating structures with levers and linkages. Skills: measuring accurately, strengthening joints, testing mechanisms.	Seasonal Cooking – baking bread or scones using simple recipes. Skills: kneading, weighing, following steps, hygiene.	Textiles: Cushions – designing and sewing decorative cushions inspired by William Morris. Skills: stitching, pattern creation, evaluation.
Year 4	Pneumatic Monsters – designing moving creatures using air pressure. Skills: creating mechanical systems, testing prototypes, refining designs.	International Dishes – exploring ingredients and cooking simple meals from around the world. Skills: food preparation, combining flavours, evaluating taste.	Electrical Torches – designing and making torches inspired by Thomas Edison. Skills: circuit building, design for purpose, testing safely.

Year 5	Bridge Engineering – designing and testing truss bridges inspired by Gustave Eiffel. Skills: measuring precisely, reinforcing joins, evaluating strength.	Healthy Snacks – creating energy bars inspired by nutritional guidelines. Skills: combining ingredients, considering texture, packaging design.	Textiles and Patterns – creating fabric phone cases inspired by cultural designs. Skills: cutting templates, accurate stitching, applying fastenings.
Year 6	Fairground Rides – designing motorised rides using gears and pulleys inspired by innovators like Dyson. Skills: using motors, assembling structures, teamwork.	Celebration Meals – designing menus and preparing dishes inspired by seasonal foods. Skills: planning, cooking safely, presenting food attractively.	Architecture and Innovation – designing sustainable buildings inspired by architects like Zaha Hadid. Skills: modelling, creative thinking, evaluation.

Progression of Knowledge and Skills

From EYFS to Year 6, pupils develop technical knowledge and practical competence. They move from guided exploration of materials to independent innovation, applying understanding of structures, mechanisms, and food technology. Pupils refine precision, creativity, and problem-solving skills over time, becoming confident designers and makers.

Disciplinary Skills

Skill Area	Description
Designing	Generating and communicating creative ideas using sketches, plans, and prototypes.
Making	Selecting and using materials, tools, and equipment to build purposeful products safely and accurately.
Evaluating	Reflecting on ideas and outcomes, testing functionality, and suggesting improvements.
Technical Knowledge	Understanding mechanisms, structures, and systems, including electrical and mechanical components.
Cooking and Nutrition	Developing understanding of ingredients, hygiene, and healthy eating through hands-on food preparation.