

St Mary's CE Primary School

Design and Technology Policy

2026 - 2027



Intent

Design and Technology is an inspiring and practical subject requiring precision and meticulous attention to detail. The subject encourages children to solve problems both as individuals and as members of a team. At St. Mary's CE Primary School, we encourage children to use their creativity and imagination, to

design and make products that solve real problems within a variety of contexts. Wherever possible, design and technology projects are linked to other subjects such as mathematics, science, computing, history, geography and art. Children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and they are encouraged to become innovators and risk-takers.

Definition

Design and Technology is a subject where children's capability in designing and making is developed through combining their designing and making skills with knowledge and understanding. At St Mary's CE Primary, we view Design and Technology as a subject which allows children to apply their knowledge and understanding in a creative way to design and make products.

"Design and Technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation."

(National Curriculum Document 2014)

"Tell me and I forget- show me and I may remember- let me do it, and I learn." Learning through making works! (Prue Leith, Leith's School of Food and Wine As quoted in National Curriculum Document 2001, page 14)

Implementation

Aims

The national curriculum for design and technology aims to ensure that all pupils:

□ Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world

- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook.

Planning

Foundation Stage

Children in the Foundation Year undertake investigative and skills-based tasks during independent working time. The Design and Technology area is available to them on a daily basis and they are encouraged to undertake focused practical tasks through directed and self-initiated stimuli. They are provided with resources based on topics they are exploring and they are encouraged to design and develop ideas independently. Children in the Foundation Stage work on a range of creative themes and tasks, and their work in Creative Development links closely to other areas of the Foundation Stage Profile, especially Physical Development.

Key Stage 1

Through a variety of creative and practical activities, pupils are taught the knowledge, understanding and skills needed to engage in the process of designing and making.

When designing and making, pupils should be taught to:

Design purposeful, functional, appealing products for themselves and other users based on design criteria

Generate, develop, model and communicate their ideas through talking, drawing, using templates, mock-ups and, where appropriate, information and communication technology

Make - Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] - Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate - Explore and evaluate a range of existing products - Evaluate their ideas and products against design criteria

Technical knowledge - Build structures, exploring how they can be made

stronger, stiffer and more stable - Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Key Stage 1 children undertake one unit of work per term - comprising of construction, textiles and, food and nutrition. They also have opportunities during Design and Technology lessons to develop their own ideas and generate designs independently. Progression of Design and Technology skills is monitored by staff formally and informally with references to expectations from the National Curriculum.

Planning follows the medium-term planning linked to National Curriculum guidelines.

Key Stage 2

Through a variety of creative and practical activities, pupils are taught the knowledge, understanding and skills needed to engage in the process of designing and making. When designing and making, pupils should be taught to:

Design - Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make - Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately - Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate - Investigate and analyse a range of existing products - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Understand how key events and individuals in design and technology have helped shape the world

Technical knowledge - Apply their understanding of how to strengthen, stiffen and reinforce more complex structures - Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

Understand and use electrical systems in their products [for example, series circuits incorporating

switches, bulbs, buzzers and motors] - Apply their understanding of computing to program, monitor and control their products.

Cooking and nutrition

As part of their work with food, pupils are taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils opens a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

Key stage 1 - Use the basic principles of a healthy and varied diet to prepare dishes - Understand where food comes from.

Key stage 2 - Understand and apply the principles of a healthy and varied diet - Prepare and cook a variety of healthy dishes using a range of cooking techniques - Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Organisation Children are taught by Foundation Stage staff or Key Stage 1 and 2 staff. External specialists are used, when possible, to train staff. Students in school are encouraged to consider the benefits and learning opportunities possible through Design and Technology.

Assessment and record keeping

□ The Subject Co-ordinator keeps a sample of Design and Technology booklets, a photographic portfolio of drawings, and photographs of the finished products. These are used for assessment purposes and to monitor progression across the school.

□ Staff meetings are held to celebrate learning and to outline the next steps.

Equal opportunities and inclusion of all children

We believe that it is important for all children to experience the range of design and technology activities.

All children are encouraged and supported to develop design and technological capability through a range of materials. We recognise the importance of identifying the specific difficulties that individual children might experience, and targets are set within their pupil passports to reflect appropriate teaching and organisational strategies to meet their needs.

At St Mary's CE Primary, all children are expected to participate in Design and Technology projects.

Resources

All resources for Foundation Stage are held within the Foundation Stage classrooms.

Resources for Key Stage 1 and 2 are held centrally. Within Foundation Stage, the classroom has a Design and Technology area containing renewable and interchangeable resources including a selection of paper, plastics and metals. These resources will be renewed and replaced as appropriate, with consideration given to topics within all areas of learning across the Foundation Stage Profile. The outdoor environment contains opportunities for working on Design and Technology projects, including construction kits, sand and water.

□ A range of materials and tools is provided for Key Stage 1 and 2 children within classrooms including: paper, card, hole punches, snips, scissors, glue, glue sticks, sellotape, rulers, wall pins, etc

□ Food resources, tools and equipment are kept in the Design and Technology storeroom. Money is also set aside to buy food and ingredients when a food technology unit is being taught

□ Collections of products suitable to use as a stimulus for designing and making activities are stored in a central store - reclaimed materials, textiles, square section wood, dowelling, wheels, construction kits, wood, and so on.

□ Published resources and projects to support teaching and learning in Design and Technology are stored in a central store, in the Design and Technology store room.

Health and Safety Teachers
will always teach the safe use of tools and equipment and insist on good practise.

The Role of the Design and Technology Co-ordinator is to:

□ lead the development of design and technology in school

□ provide guidance to individual members of staff

□ keep up to date with local and national developments in design and technology and disseminate relevant information

□ review and monitor the success and progress of the planned units of work

□ order stock linked to the planned units of work at the end of each term, and whenever required

□ be responsible for the organisation and maintenance of design and technology resources

Monitor the teaching and learning of Design and Technology projects through drop-ins, monitoring booklets, and interviewing children.

Impact

Through Design and Technology, we ensure the children:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users and critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.
- Children will design and make a range of products.
- A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child

This policy outlines the teaching and learning of design and technology. It will be reviewed annually by the co-ordinator. The implementation of the policy is the responsibility of all teaching staff and will be monitored by the head teacher.

Date: September 2026 Review date: July 2027

	Autumn term - Project 1	Spring term- Project 2	Summer term - Project 3
Little Saints	Geography: I wonder where I live. Make a town using large construction Autumn 1 Narrative: I wonder what my favourite nursery rhyme is. Make instruments out of natural objects Autumn 2 Science: I wonder all about nature. Make bird feeders Autumn 2	History: I wonder who is in my family tree Create family dinner in the mud kitchen Science: I wonder what new life looks like. Growing seeds/vegetables Spring 1 Narrative: I wonder who my favourite character is. Build the three bears' house Make mud porridge Create the pigs houses out of natural materials Create masks to retell stories Spring 2	History: I wonder what transport is like. Create different forms of transport using construction toys. Summer 1 Narrative: -I wonder which Julia Donaldson story is my favourite Create own brooms Create own stick men Summer 2
Nursery	Making structures using blocks, etc, threading beads through strings, cutting and gluing, food-making Making bird feeders Seasons - planting daffodils Making pumpkin soup Autumn term	History - castles Build a castle Science - a seed in need Building dens Spring 1 Narrative: Jack and the Beanstalk Planting beans Spring 2	Science: The Hungry caterpillar Recreate a story using small world equipment Summer 1 Narrative - Fairy Tales Nature weaving Summer soup/jelly Summer 2

Reception	Use recycled materials to create objects Narrative: I wonder what happens in Winter Make an igloo Make bird feeders Autumn 2	Making structures using blocks, etc, threading beads through strings, cutting and gluing - ongoing History: I wonder if farms were different in the past. Make a bed for an animal Make a tractor using large loose parts Spring 1 I wonder how things grow. Make a plant image using natural materials Make a scarecrow Plant seeds/vegetables Spring 2	Making structures using blocks, etc, threading beads through strings, cutting and gluing - ongoing History: I wonder what holidays were like in the past Use large construction materials to make boats, a lighthouse Make a kite Summer 1 Narrative/Geography: I wonder about our amazing world Use different materials to create fruits from around the world Summer 2
Year 1	Food: Design, make and evaluate a gingerbread man. (Autumn 2) (links with narrative unit- The Gingerbread man) WC 25.11.26	Structures: Design, make and evaluate a moving picture. (Spring2) (Links with narrative unit - Penguins-narrative) WC 24.02.27	Textiles: Design, make and evaluate a bookmark for yourself, to place inside the book you are reading. (Summer 1) WC 28.04.27
Year 2	Textiles: Design, make and evaluate puppets that can be used for a puppet show for reception children. (links with the narrative unit - The Twits) (Autumn 2) WC 25.11.26	Food: Design, make and evaluate a meal linked to two countries to celebrate the two cultures - Pakistan and England Making pakoras (links with Geography - What's it like to be a child in Pakistan?) (Spring 2) WC 07.04.27	Making: Plan, design. Make and evaluate a vehicle (Summer 2) WC 16.06.27

Year 3	Food: Design, make and evaluate a healthy, savoury meal - fruit salad, chana masala. (Autumn 1) Links with Science - Healthy Eating WC 09.12.26	Textiles: Design, make and evaluate a pouch to store seeds in. (Spring 1) (links with history - Stone Age to Iron Age) WC 20.01.27	Automata (Summer 1) Design, make and evaluate an automata toy for Year 1/2 children. (links with History - The Indus Valley Civilisation) WC 15.06.27
Year 4	Mechanisms Alarms (Autumn 1) (Links to Science topic - Electricity) WC 09.12.26	Food: Design, bake and evaluate an ancient Roman pizza dough to celebrate Caesar's victory - Pizza Romana. (Spring 1) (links with History - The Romans) WC 20.01.27	Textiles: Design, make and evaluate a bag to carry things in when going on a journey. (Summer 1) WC 19.05.27
Year 5	Woodwork (Autumn 2) Design, make and evaluate a photograph frame as a gift to parents at Christmas. WC 16.12.26	Textiles: Design, make and evaluate a pencil case, made for yourself in which to keep your pencil crayons. (Spring 2) WC. 17.03.27	Food: Design, make and evaluate a chicken kebab. (Summer 1) (links with History - Early Islamic Civilisation) WC 28.04.27
Year 6	Textiles: Design, make and evaluate a Christmas stocking in which to hold your presents. (Autumn 2) WC 25.11.26 - a lesson per week	Structures: Bridges (Spring 1) WC 10.02.27	Food technology: Design, make and evaluate pasties using seasonal foods. (Summer 2) WC 07.07.27