



Design & Technology



“Technology makes what
was once impossible
possible.
The design makes it real.”

— Michael Gagliano

Curriculum Intent

At St Joseph’s we aim to provide children with a broad range of subject knowledge and encourage them to encompass skills in mathematics, science, engineering, computing, and art to complement their learning. We deliver a Design & Technology curriculum that offers children the opportunity to explore a wide scope of skills through broad and interesting topics. Teaching children with a vast range of media, materials and approach supports children in being able to emerge themselves, explore and find methods that work for them.

Implementation

At St Joseph’s, Design & Technology is taught within our termly topic work. Skills covered include drawing, painting, sculpting, and printing, based on topics within the curriculum overview below. Each class explores and celebrates Fair Trade throughout the year, this allows the children to build up a wealth of knowledge around how foods are sourced and brought to the table.

Curriculum Overview

	Autumn	Spring	Summer
Nursery	Ourselves Transient Art Portraits Play Dough Pets. People who Help Us Make Train Tracks with a Range of Media	Fairy Tales Building Houses with Different Materials Exploring Dress Material. Journeys Role Play Train Ride. Make Junk Model Vehicles.	In the Garden Caterpillar Life Cycle Planting Seeds. Out and About Exploring Fruit - Handa’s Surprise.
Reception	Transport Creating Wheeled Vehicles Exploring Making and Using Wheels That Turn	Fairy Tales Collage (including fabric) Puppet Making Exploring Ways of Joining	Minibeasts / Growing Combining materials 3D Sculptures Large Scale Transient Art The Seaside Lighthouses
Year 1	Traditional Tales Making Houses with Different Materials.	Explorers Designing and Making Vehicles. Explorers and Fairtrade Preparing and Making Fairtrade Food.	Fossils Plants, Growth, Food Sources Growing Plants.
Year 2	Great Fire of London Collages. Florence Nightingale Lanterns		Toys Make Mechanical Toys.

Year 3	My Place in the World Collages Sewing/Weaving Flags Block printing Ancient Egypt Digital art Cartouche Hieroglyphics Painted Clay.	Swimming in Plastic Design and Create a 'Bag for Life' Materials Sewing/Weaving Decorate with Block Printing, Romans in Britain Roman Mosaics Shields/ Helmets Repeated Patterns on Shields.	Angry Earth - Volcanoes Pop Art- Andy Warhol's Vesuvius Stone Age - Jewellery Sculpt Air Drying Clay Stone age home - Clay
Year 4	Ancient Greeks Clay Pots.	Volcanoes - Papier Mâché.	The Tudors - Recipes Food Technology.
Year 5	WW2 - Lighthouse Clay Modelling.	Victorian Landscape Make Victorian Houses.	Natural Resources Natural Resources to Create 3D Artwork.
Year 6	Natural Resources Recycled Art	North America Totem Poles	Japanese Tsunami Landscape Paintings Collage

Impact

Summative assessments take place throughout the year, allowing teachers to record the progress and attainment against the National Curriculum. Through the delivery of Design & Technology children should be able to demonstrate the following skills by the end of Key Stage 2, providing them with a firm foundation to build on as they enter Key Stage 3.

- **Design** - use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.
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

- Understand and apply the principles of a healthy and varied diet.
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Understand where food comes from, seasonality, and know where and how a variety of ingredients are grown, reared, caught, and processed.

EYFS - Expressive Art and Design

By the end of the foundation stage children will be able to safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function. Children will use what they have learnt about media and materials in original ways, thinking about uses and purposes. They will represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.