

Design and Technology at St Merryn School



Why teach Design Technology?

Design and technology is a practical subject that allows children to think imaginatively and creatively and to become more autonomous and effective problem solvers, both as individuals and as part of a team. Our aim is to provide children with a rich and enjoyable experience of design and technology, in which they can acquire and develop their own designing and making skills.



Design and Technology education involves two important elements - learning about the designed and made world and how things work, and learning to design and make functional products for particular purposes and users. Design and Technology education helps develop children's skills through collaborative working and problem-solving, and knowledge in design, materials, structures, mechanisms and electrical control. They are encouraged to be creative and innovative, and are actively encouraged to think about important issues such as sustainability and enterprise.

DATA (The Design & Technology Association) www.data.org.uk

Intent – aims and objectives

- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making
- To enable children to think and talk about how things work, and to draw and model their ideas
- To encourage children to select appropriate tools and techniques to make quality products, whilst following safe procedures
- To use and explore a range of materials, resources and equipment
- To explore attitudes towards the made world and how we live and work within it
- To develop an understanding of technological processes, products, their manufacture and their contribution to our society
- To use the internet to explore ideas and already made products
- To foster enjoyment, satisfaction and purpose in designing and making things.





Teaching Design Technology at St Merryn School

Through a flexible curriculum, the school uses a variety of teaching and learning styles in design and technology lessons. The principal aim is to develop children's knowledge, skills and understanding in the subject.

Teachers ensure that children apply their knowledge and understanding when developing ideas, during planning and making products and when evaluating them. This is done through a mixture of whole-class teaching and individual or group activities. Within lessons, children are given the opportunity both to work

on their own and to collaborate with others, listening to other children's ideas and treating these with respect. Children critically evaluate existing products, their own work and that of others. They have the opportunity to use a wide range of materials and resources, including ICT.



The Curriculum

Our cross curricular, topic led approach at St. Merryn enables us to incorporate DT projects designed to enrich topic knowledge and understanding. Therefore, allowing children to make connections and learn about different historical times, countries, cultures and belief systems.

When designing and making, the

children are 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 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
 - understand and use electrical systems in their products
- apply their understanding of computing to program, monitor and control their products

Food in the Curriculum:

Food, by its very nature, lends itself to many learning opportunities. The school curriculum can be used to enrich pupil's experience of food and healthy eating.

Curriculum content which all children will focus on:

- Food groups leading to good health/ growth.
 - The development of healthy bodies and teeth through good nutrition.
 - Food from different cultures/ beliefs explored through a cross-curricular rolling programme.
- Cooking as part of DT lessons across all age ranges.
 - Learning from professional chefs, local bakeries and farm shops.
 - Internet research and other learning materials to be accessed by pupils.

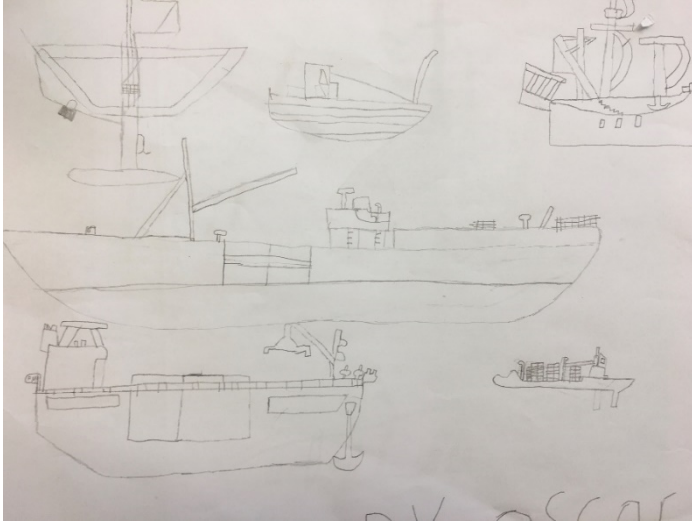


Learning to make Thai fishcakes at Stein's cookery school



Assessment

Teachers assess children's work in design and technology by making assessments as they observe them working during lessons, allowing for different learning styles. They record the progress that



children make by assessing the children's work against the learning objectives for the lessons. Children are encouraged to make judgements on ways in which their work can be improved.

During the Foundation Stage children will be assessed as part of Understanding the World against the development matters statements and early learning goals.

EYFS Design Technology



We encourage the development of skills, knowledge and understanding that help Nursery and Reception children make sense of their world. These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction materials safely and with increasing control.

We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking, discussion and decision making. These activities take place both indoors and outdoors, and are designed to arouse the children's interest and curiosity.

Children in EYFS will experience a variety of activities including:

- Choosing and exploring a variety of materials such as fabric, card, paper, wood, boxes etc.
- Learning how to use scissors safely and correctly,
- Exploring a variety of joining techniques such as PVA glue, Pritt stick, masking tape, elastic bands, sellotape, split pins, paper clips and string to join materials together,
- Taking part in both cooking and non-cook food activities, learning about the importance of food hygiene and tasting and exploring food using all their senses
- Having opportunities to explore creating models using a wide range of construction kits that fit together in a variety of different ways,
- Having opportunities to talk about and explain how they will/have made their model and to discuss what they like/dislike about it,
- Folding and shaping paper in order to create a range of structures.

