



St Maria Goretti Catholic Primary School

Design Technology Policy

Date approved: September 2022

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Aims of Design and Technology

- 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

Early Years

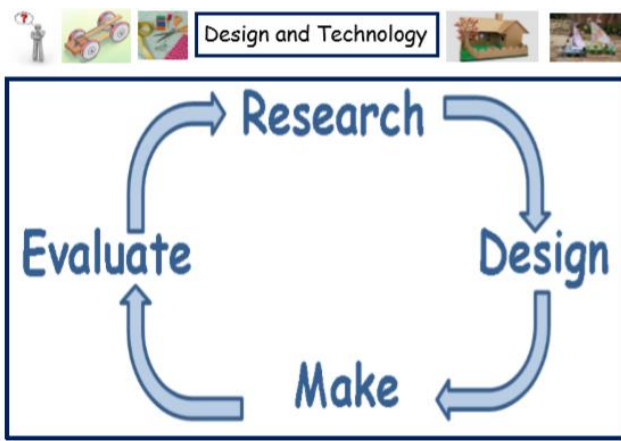
We encourage the development of skills, knowledge and understanding that help Reception children make sense of the world. As part of the Early Years Foundation Stage we relate the skills taught in Design and Technology to the objectives set out in the Early Learning Goals. These underpin the curriculum planning for children aged three to five. This learning forms the foundations for later work in Design and Technology.

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. Children also learn about hygiene, handling and cutting food safely. We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity.

The activities taught have been mapped out for each half term on the Early Years curriculum planning for design and technology document.

The Process

Below is the process followed for each unit of work. This process is displayed in each classroom and children are encouraged to display their work around the process as the unit progresses.



Each child has a plastic wallet and each unit of work is filed in the wallet.

The purpose of the unit of work is always made clear before starting. Depending on the year group and unit, the children can have an input on the purpose of their model and who they are making it for.

Teaching and Learning Styles

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 design and technology. Teachers ensure that the children apply their knowledge and understanding when developing ideas, planning and making products and then evaluating them. We do this through a mixture of whole-class teaching and individual/group activities. Within lessons, we give children 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. In all classes there are children of differing ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- setting common tasks that are open-ended and can have a variety of results;
- setting tasks of increasing difficulty where not all children complete all tasks
- grouping children by ability and setting different tasks for each group
- providing a range of challenges through the provision of different resources
- utilising additional adults to support the work of individual children or small groups

Links to other curriculum areas

English - Design and Technology contributes to the teaching of English in our school by providing valuable opportunities to reinforce what the children have been doing during their English lessons. Discussion, drama and role-play are important ways that we employ for the children to develop an understanding of the fact that people have different views about Design and Technology. The evaluation of products requires children to articulate their ideas and to compare and contrast their views with those of other people. Through discussion, children learn to justify their own views and clarify their design ideas.

Mathematics - In Design and Technology there are many opportunities for children to apply their mathematical skills through choosing and using appropriate ways of calculating measurements and distances. They learn how to check the results of calculations for reasonableness, and learn how to use an appropriate degree of accuracy for different contexts. Children learn to measure and use equipment correctly. They apply their

knowledge of fractions and percentages to describe quantities and calculate proportions. The children will carry out investigations and in doing so they will learn to read and interpret scales, collect and present data, and draw their own conclusions. They will learn about size and shape, and make practical use of their mathematical knowledge, in order to be creative and practical in their designs and modelling.

Personal, Social and Health Education (PSHE) - Design and Technology contributes to the teaching of PSHE and Citizenship. We encourage the children to develop a sense of responsibility in following safe procedures when making things. They also learn about health and healthy diets. Their work encourages them to be responsible and to set targets to meet deadlines, and they also learn, through their understanding of personal hygiene, how to prevent disease from spreading when working with food.

Spiritual, Moral, Social and Cultural Development - The teaching of Design and Technology offers opportunities to support the social development of our children through the way we expect them to work with each other in lessons. Our groupings allow children to work together, and give them the chance to discuss their ideas and feelings about their own work and the work of others. Through their collaborative and cooperative work across a range of activities and experiences in Design and Technology, the children develop respect for the abilities of other children, and a better understanding of themselves. They also develop a respect for the environment, for their own health and safety, and for that of others. They develop their cultural awareness and understanding, and they learn to appreciate the value of differences and similarities. A variety of experiences teaches them to appreciate that all people are equally important, and that the needs of individuals are not the same as the needs of groups.

Computing and IT - Computing enhances the teaching of Design and Technology, wherever appropriate, in all key stages. Children may use software to enhance their skills in designing and making things. The children also use computing to collect information and to present their designs through a range of design and presentation software. Children use apps on iPads to help with the process e.g. puppet pals.

Art and Design - Many units provide opportunities for pupils to use and develop creative skills, knowledge and understanding. Opportunities exist for pupils to use their creative knowledge, skills and understanding through the use of pattern, texture and colour, experimenting with visual elements such as pattern and shape, investigation of products from a range of cultures and the safe use of materials and tools.

Equal Opportunities

Children, irrespective of ability, race, gender or sexual orientation, are given full access to the Design and Technology curriculum, in accordance with the requirements of recent relevant legislation.

Design and Technology Curriculum Planning

We carry out the curriculum planning in Design and Technology in three phases: long-term, medium-term and short-term. The long-term plan shows the curriculum coverage for design and technology. This plan maps out the units being taught in each year group and which half term. Medium and short term planning is done by teachers individually with support of colleagues when needed. We plan the activities in Design and Technology so that they build on the prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding, and we also build planned progression

into the scheme of work, so that the children are increasingly challenged as they move through the school.

The teachers also have the 'Projects on a Page' document for the units. They also use the National Curriculum and Progression of Skills document to support their planning.

Assessment

Teachers assess children's work in Design and Technology by making assessments as they observe them working during lessons. Teachers collect examples of the children's work and forward them to the coordinator for inclusion in the Design and Technology portfolio. This evidence may be paper-based or electronic. The Design and Technology subject leader keeps evidence of the selection of children's work at different ability levels, forwarded by class teachers, in a portfolio. This demonstrates what the expected level of achievement is in Design and Technology throughout each year in the school.

Resources

Our school has a selection of resources to support the teaching of Design and Technology across the school. Classrooms have a range of basic resources, with the more specialised equipment being kept in the Design and Technology school store. Audits will be carried out regularly to monitor the resources, any shortfalls should be reported to the coordinator who will arrange for replenishment. This room is not accessible to children without adult supervision. The library contains a selection of Design and Technology books.

Food Hygiene and Safety

The general teaching requirements for health and safety apply in this subject. Children are taught how to follow safe procedures for using tools and equipment along with food safety and hygiene. Health and safety is important, particularly when working with tools, equipment and resources. Children should be given suitable instruction on the operation of all equipment before being allowed to work with it.

Monitoring and Review

The monitoring of the standards of children's work and of the quality of teaching in Design and Technology is the responsibility of the Design and Technology co-ordinator. The work of the co-ordinator also involves supporting colleagues in the teaching of Design and Technology, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. The Design and Technology co-ordinator gives the Headteacher an annual report in which they evaluate the strengths and weaknesses in the subject and indicates areas for further improvement.