St Mary's RC Primary School
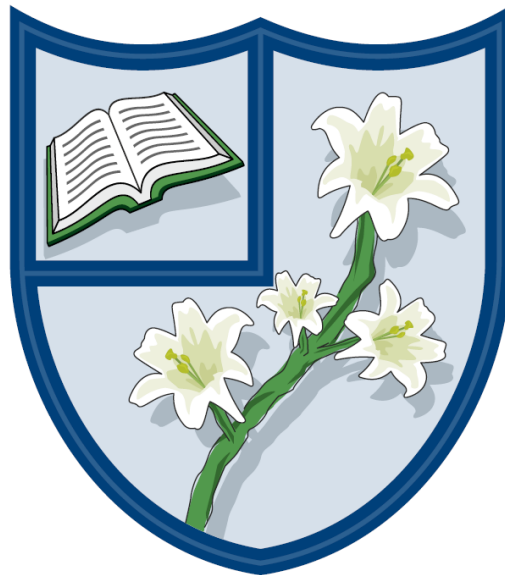
Design and Technology Policy

DEFINITION

'*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.*'(DFE Statutory Guidance)

AIMS AND OBJECTIVES

The aims of design and technology are:

•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 talk about how things work and to draw and model their ideas;

•to encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;

•to explore attitudes towards the 'made' world and how we live and work within it and use the internet to explore ideas and already 'made' products;

•to develop an understanding of technological processes, products, and their manufacture and their contribution to our society;

• to develop children's capability to create high quality products through combining their designing and making skills with knowledge and understanding.

•to foster enjoyment, satisfaction and purpose in designing and making.

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We recognise that Design and Technology can be an effective motivational tool for children of all ability levels. It can help promote children's:

• self-esteem through the production of quality outcomes.

• perseverance in their approach to work

• independence by enabling them to take greater responsibility for their learning

TEACHING AND LEARNING STYLE

The school uses a variety of teaching and learning styles in D&T 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, identifying strengths and weaknesses in a positive way. They have the opportunity to use a wide range of materials and resources, including ICT. Pupils are given opportunities to develop and apply their I.C.T. capability in the context of their study of Design and Technology, including for example, control technology, communications, etc. Pupils are also, where appropriate and possible, given opportunities to attend educational visits to places which give them insight into how the design process applies in real life situations.

 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;

•using additional adults to support the work of individual children or small groups.

DESIGN AND TECHNOLOGY CURRICULUM PLANNING

Design and technology is a foundation subject in the National Curriculum and as such, all year groups (from Y1 to Y6) use the new National Curriculum as the basis for their curriculum planning in design and technology. Skills in the Foundation Stage are planned through the objectives within the EYFS.

Programmes of Study set out what is to be taught and include opportunities for:

• developing, planning and communicating ideas (Design)

• working with tools, equipment, materials and products (Make)

• evaluating processes and products (Evaluate)

• knowledge and understanding of materials and components (Technical Knowledge)

• widening the breadth of study

Each term we have a Design and Technology based day, which focusses on a different aspect of the Design and Technology curriculum and is linked to our Creative Curriculum topics. As well as this, we have a Design and Technology project that runs every other half term.

Teachers plan the activities in design and technology so that they build upon 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.

ROLE OF THE STAFF

It is the responsibility of staff:

1. To plan and deliver the Design and Technology National Curriculum following the guidelines contained in this document.

2. To ensure that the entire range of skills detailed in the National Curriculum are taught.

3. To look after shared resources when used and to return them safely to the resource cupboard.

4. To ensure that pupils are taught the safe procedures and practices for use of tools and equipment.

5. To ensure that they are confident and adequately skilled in the safe use of the equipment. **ROLE OF**

THE SUBJECT LEADER

It is the responsibility of the D.T. subject leader:

1. To monitor the Design and Technology Curriculum and to update the school's policy in accordance with national guidelines and curriculum statements.

2. To review the provision and coverage of DT on an annual basis, in cooperation with the teachers. This review will inform any necessary changes.

3. To support teachers in delivering the curriculum and arrange staff development and INSET training where appropriate.

The Foundation Stage

We encourage the development of skills, knowledge and understanding that help nursery and reception children make sense of their world as an integral part of the school's work. We relate the development of the children's knowledge and understanding of the world to the objectives set out in the EYFS. 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 material safely and with increasing control.

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.

CONTRIBUTION OF DESIGN AND TECHNOLOGY TO TEACHING IN OTHER CURRICULUM AREAS

Literacy

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 Literacy lessons. 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.

Personal, social and health education (PSHE) and citizenship

Design and technology contributes to the teaching of personal, social and health education 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 co-operative 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.

ICT

We use ICT to support design and technology teaching when appropriate. Children use software to enhance their skills in designing and making, and use draw-and-paint programs to model ideas. They use databases to provide a range of information sources and CD-ROMs or the internet to gain access to images of people and environments. The children also use ICT to collect information and to present their designs through draw-and-paint programs.

DESIGN AND TECHNOLOGY AND INCLUSION

At our school we teach design and technology to all children, whatever their ability. Design and technology forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our design and technology teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

Intervention through School Action and School Action Plus will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to design and technology.

We enable pupils to have access to the full range of activities involved in learning design and technology. Where children are to participate in activities outside the classroom, for example, a museum or factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

RECORD KEEPING, ASSESSMENT AND REPORTING

As in all other areas of the curriculum, assessment is an integral part of the teaching process. Class teachers should keep records of work carried out by pupils and levels of achievement of the work.

Photographs are a useful tool to keep as a reminder of pupils achievements.

Formative assessment is used to guide the progress of individual pupils in Design and Technology. It involves identifying each child's progress in each aspect of the curriculum, determining what each child has learned and what should therefore be the next step in their learning. Formative assessment is mostly carried out informally by the teachers in the course of their teaching and should be based on the identified assessment opportunities.

Children's progress in Design and Technology is reported to parents through the pupil annual report.

RESOURCES

Our school has a wide range 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 storage units within our Central Resource Room. The subject leader will be responsible for the ordering and management of the equipment and materials. Staff will sign out equipment that they take from the resource room and inform the co-ordinator when materials are required for a project or need to be re-ordered.

An annual audit of resources will be made by the coordinator.

HEALTH AND SAFETY

The general teaching requirement for health and safety applies in this subject and staff should refer to the health and safety policy. We teach children how to follow proper procedures for food safety and hygiene. It is the responsibility of teachers to teach the safe use of tools and equipment and insist on good practice. Use of craft knives is limited to teaching staff/adults or to children in Year 6 under direct supervision. Low temperature glue guns may be used by children in years 1 to 6, as long as this is limited to small groups and is under direct adult supervision. Hot glue guns are to be used by teaching

staff/adults only. The teacher will be responsible for the health and safety of themselves, classroom assistants and pupils within their class.

Pupils will be taught to:

1. collect and return tools and equipment safely;

2. follow clear instructions;

3. only move around the room when necessary;

4. wear safety equipment whenever necessary.

To ensure the safe use of tools and equipment, it is important that teachers are confident when using them, so that they can correctly demonstrate their use. All pupils should be clear on the intended use of the tools.

An annual inspection of resources/equipment will be made by the coordinator to ensure the safety of the tools.

MONITORING AND REVIEW

The monitoring of the standards of children's work and the quality of teacher's planning in design and technology is the responsibility of the design and technology subject leader. The work of the subject leader 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 school. A curriculum review is made annually which reports on achievements and indicates areas for further improvement.

The school Design and Technology policy is reviewed annually and approved by the governing body.

Policy written by A Readman (subject leader)

September 2021