

Article 13

You have the right to find out about things and share information with others.



Design and Technology Policy

Article 28

A right to learn.



1 Aims and objectives

1.1 Design and technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems. Through the study of design and technology they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and technology helps all children to become discriminating and informed consumers and potential innovators.

1.2 The aims of design and technology are:

Through a variety of creative and practical activities, pupils should be taught:

- the knowledge, understanding and skills needed to engage in an iterative process of designing and making.

Design

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, 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 [such as 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, [such as levers, sliders, wheels and axles], in their products.

2 Teaching and learning style

2.1 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

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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.

- 2.2** 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.

3 Design and technology curriculum planning

- 3.1** Design and technology is a foundation subject in the National Curriculum. Our school uses the national scheme of work as the basis for its curriculum planning in design and technology. We have adapted the national scheme to the local circumstances of our school in that we use the local environment as the starting point for aspects of our work.
- 3.2** We carry out the curriculum planning in design and technology in three phases: long-term, medium-term and short-term. The long-term plan maps out the units covered in each term during the key stage. The design and technology subject leader works this out in conjunction with teaching colleagues in each year group. Where possible this will support other areas of the curriculum as part of a Topic based approach.
- 3.3** Our medium-term plans, which we have adopted from the national scheme, give details of each unit of work for each term. They identify learning objectives and outcomes for each unit, and ensure an appropriate balance and distribution of work across each term. Any cross curricular links will be shown.
- 3.4** Class teachers complete a daily plan for each design and technology lesson. These list the specific learning objectives for each lesson and detail how the lessons are to be taught. The class teacher keeps these individual plans, and the class teacher and subject leader often discuss them on an informal basis.
- 3.5** We 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.

4 The Foundation Stage

- 4.1** We encourage the development of skills; knowledge and understanding that help reception children make sense of their world as an integral part of the school's work. As the reception class is part of the Foundation Stage of the National Curriculum, we relate the development of the children's knowledge and understanding of the world 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 material safely and with increasing control.

- 4.2** 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.

5 Contribution of design and technology to teaching in other curriculum areas

5.1 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 now employ for the children to develop an understanding 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. Children use books and other genre to collect ideas. They also label their designs.

5.2 Computing

We use computing 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 and make repeating patterns. They use databases to provide a range of information sources and CD-ROMs 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. The children also use various imaging software to record final products and evaluations maybe saved in word.

5.3 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. There are also many links many links with the local area and community.

5.4 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. Children learn about structures, foods and toys from all over the world.



6 Teaching design and technology to children with special needs

- 6.1** We teach design and technology to all children, whatever their ability. Design and technology also forms part of our school curriculum policy to provide a broad and balanced education to all children. Teachers provide learning opportunities that are matched to the needs of children with learning difficulties.
- 6.2** Work in design and technology takes into account the targets set for individual children in their Individual Education Plans (IEPs).

7 Assessment and recording.

- 7.1** Teachers assess children's work in design and technology by making assessments as they observe them working during lessons. They record the progress that children make by assessing the children's work against age related expectations for pupil's learning from the New curriculum. Teachers then use this record to plan the future work of each child and to make an annual assessment of progress for each child, as part of the annual report to parents. Each teacher passes this information on to the next teacher at the end of each year.
- 7.2** The design and technology subject leader keeps evidence of the children's work in a portfolio. This demonstrates what the expected level of achievement is in design and technology in each year of the school.

8 Resources

- 8.1** 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 store. This room is accessible to children only under adult supervision.

9 Health and safety

- 9.1** The general teaching requirement for health and safety applies in this subject. We teach children how to follow proper procedures for food safety and hygiene. (Refer to Cleapps).

10 Monitoring and review

- 10.1** 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 subject leader. The work of the subject leader 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 subject leader gives the head teacher an annual report in which s/he evaluates the strengths and weaknesses in the subject and indicates areas for further improvement. The design and technology subject leader has specially-allocated, regular management time in order to review evidence of the children's work and undertake lesson observations of design and technology teaching across the school.



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Date: September 2017

Next review: Summer 2020