



Elton Primary School & Nursery

Design and Technology Policy

Reviewed	Spring, 2021
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1 Aims and objectives

1.1 The world that we live in is rapidly changing and it is essential that children are able to solve real and relevant problems within a variety of contexts. Design and Technology encourages children to become resourceful, innovative, enterprising and capable citizens which are creative problem-solvers and thinkers, both as individuals and as part of a team. It enables them to identify and consider needs and opportunities of their own and others' and to respond by evaluating past and present designs, developing ideas and eventually making products and systems. Through the study of Design and Technology, they acquire practical skills and a broad subject knowledge as they are able to draw on and apply other disciplines such as Mathematics, Science, Computing and Art. Design and Technology also helps all children to become informed consumers and potential innovators.

1.2 The aims of Design and Technology are:

- To build and develop pupil's knowledge, skills and understanding in order to design and make high-quality products.
- To develop imaginative thinking in children and to enable them to critique ideas and the work of others.
- 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 promote the teaching of cross-curricular links within Design and Technology.
- To develop an understanding of technological processes, products, and their manufacture, and their contribution to our society.
- To understand the principles of healthy eating.
- To develop cooking skills and awareness.
- To foster enjoyment, satisfaction and purpose in designing and making.

2 Teaching and learning style

2.1 At Elton Primary School and Nursery, we follow a themed based curriculum which is led by our topic. We use 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. Children are taught the skills of D&T using three types of activities:

- investigating and evaluating familiar products;
- focused practical tasks to develop skills; and
- design and make assignments using a range of materials.

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.

2.2 In all classes there are children of differing ability. We recognise this 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; and
- 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. At Elton Primary School and Nursery, we plan to teach the skills and knowledge of D&T as outlined in the Yearly overview of DT.

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 subject map sets out the units covered by each year group for each term that year. The Design and Technology subject leader works this out in conjunction with teaching colleagues in each year group to ensure breadth of coverage and skills. It is expected that pupils will complete three Design and Technology projects in each academic year at Elton Primary School and Nursery.

3.3 Our medium-term plans give details of the DT project for each term's topic. Design and Technology is planned to fit in with the topics taught and is following the school's programme of topics. For example, in Year 4, the DT Spring 1 project is build a model volcano, which is part of the Geography and History led topic about Mount Vesuvius and other volcanoes. The medium-term plans identify skills and objectives for each project and ensure an appropriate balance and distribution of work across each term.

3.4 Class teachers complete individual plans for each Design and Technology lesson. These list the specific skills and learning objectives for each lesson and detail how the lessons are to be taught. The class teacher keeps these individual plans, and the subject-leader may monitor planning.

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 and Nursery children make sense of their world as an integral part of the school's work. As the Reception and Nursery class are part of the Foundation Stage of the National Curriculum, Design and Technology is delivered through two areas: 'Physical Development' and 'Expressive Arts and Design'. This learning forms the foundations for later work in D&T. 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 D&T 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. 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.

5.2 Computing

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 and make repeating patterns. They use the Internet to provide a range of information sources and to gain access to images of people, products and mechanisms. Through the use of Flowol software the children are able to control sample models and mechanisms. The children can also use ICT to collect information and to present their designs through draw-and-paint programs.

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.

5.4 Spiritual, moral, social and cultural development

The teaching of D&T 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 D&T, 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.

6 Design and Technology and Inclusion

6.1 At our school we teach Design and Technology to all children, whatever their ability and individual needs. Design and Technology implements the school curriculum policy of providing a broad and balanced education to all children. Through our Design and Technology teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this. For further details see separate policies: Special Educational Needs; Disability Non-Discrimination and Access.

6.2 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. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels. This helps ensure that our teaching is matched to the child's needs.

6.3 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 in a museum or on a factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

7 Assessment for Learning

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 the learning objectives for their lessons

7.2 The Design and Technology subject leader keeps evidence of the children's work from previous years. 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 D&T. These resources are stored in a number of key areas throughout the school. These resources are accessible to children only under adult supervision. Teaching resource boxes for some areas of D&T, containing a range of plans, product examples, visual prompts etc are maintained by the subject leader and kept in the D&T resource room cupboard.

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. Children using tools should be supervised by a responsible adult at all times. We teach the safe use of tools and equipment and insist on good practice. Should any accidents occur it is the intention that they are reported immediately and set as a point for review on the Design and Technology health and safety action plan. Action plans are kept in the H&S file by the staff H&S representative.

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 should be 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.