Design & Technology Policy

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DESIGN AND TECHNOLOGY POLICY

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Special Educational Needs

According to OFSTED, pupils with special educational needs make better progress in D&T than in most other subjects.

This is because designing and making usable products gives pupils a real sense of achievement. They benefit from experiencing their own progress and taking responsibility for their own learning. They enjoy the practical application of their ideas. Plus, their personal engagement with the task improves attention span, patience, persistence and commitment.

All of which means SEND (special educational needs and disability) pupils can achieve results that compare or even exceed their peers. Design and Technology offers these pupils the chance to experience achievement at a level that may seldom occur elsewhere in their school life.

Why is D&T important for those with special educational needs?

Design and Technology is a popular and valuable subject for pupils with special educational needs. Knowledge and understanding is drawn from across the curriculum and helps to develop and enable numeracy, literacy and communication skills that can be applied in practical ways. This consolidates skills from other lessons and reinforces learning with positive outcomes.

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 of 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 Our objectives in the teaching 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 things.
- 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 foster enjoyment, satisfaction and purpose in designing and making things.

2 Teaching and learning style

2.1 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 or group activities. Within lessons, we give children the opportunity both to work on their own and to collaborate with others.

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.
- Providing a range of challenges through the provision of different resources.
  Using additional adults to support the work of individual children or small groups.
  Basic skills are taught throughout the school, beginning with simple tasks such as cutting and sticking, drawing and painting.
- Basic construction skills are gained through using materials such as Duplo, Lego, and Meccano.
- Manipulation of materials is learnt by using materials such as playdough and plasticine.
- In Food Technology students begin by making simple dishes such as jelly, moving on to basic baking techniques to making their own lunches in the 14-19 department. Life skills are incorporated too, including sewing, washing, ironing, menu planning, cooking techniques and shopping.

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

3.1 Art

There is close overlap with Art, with use of different materials and design and making techniques, such as painting, colouring, drawing, cutting and sticking for example in making collages.

3.2 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. Talk helps 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, clarify their design ideas, and increase their general and technical vocabulary.

3.3 Mathematics

In design and technology, children have 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 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.

3.4 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.

3.5 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 in which 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.

4 Assessment

4.1 Work in design and technology is differentiated according to ability. Assessment then informs future planning. Some students that have opted to take this subject as a vocational option will be working to achieve suitable Aim Award accreditation, both in design and technology and in food/life skills.

5 Resources

5.1 Our school has a range of resources to support the teaching of design and technology across the school. Classrooms have a range of basic resources, with some specialised equipment being kept in the design and technology room and food technology room. These areas are accessible to children only under adult supervision.

6 Health and safety

6.1 In this subject, the general teaching requirement for health and safety applies. We teach children how to follow proper procedures for food safety and hygiene. For safe use of materials and tools, there is also a separate policy.

7 Training

7.1 The machinery in the D&T workshop is mainly for the use of trained and competent staff only, who must have an up to date workshop safety certificate. Some machines, such as the belt sander can be used by students under strict supervision (again, refer to the separate Health & Safety policy).

7.2 Any staff that lead food technology lessons must have a level 2 food safety certificate.