Design & Technology Policy

Approved by:	Head – A Stallard	**Date:01.10.2025**
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1 Aims and objectives

At Norbreck, Design and Technology is recognised as an essential part of the curriculum for all pupils. 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. Children working in groups on an extended project will be able to develop skills of co-operation, compromise and decision making. Design and Technology enables learners 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 children to reflect on and evaluate present and past design and technology, its uses and impact. Design and technology helps all children to become discriminating and informed consumers and potential innovators, and nurtures excitement, experimentation, self fulfilment and a positive appreciation of the value of doing.

The aims of design and technology for pupils at Norbreck Primary Academy School are:

1. to develop imaginative thinking in children and to enable them to talk about likes and dislikes when designing and making;
2. to enable children to talk about how things work, and to draw and model their ideas;
3. to teach basic Design and Technology skills;
4. to encourage children to select appropriate tools, materials and techniques for making a product, whilst following safe procedures;
5. to develop problem solving and experimentation to create innovative solutions to practical problems;
6. to explore attitudes towards the made world and how we live and work within it;
7. to make links between Design and Technology and other curriculum areas and make abstract concepts more meaningful (eg, electricity, forces)
8. to develop an understanding of technological processes, products, and their manufacture, and their contribution to our society;
9. foster enjoyment, satisfaction, creativity and purpose in designing and making.

In order to achieve these aims, we need to ensure we allow children to access appropriate resources and experiences. These are:

1. Through a range of materials to provide children with a sensory experience of a visual and tactile nature and to appreciate the particular qualities of common materials;
2. Encourage children to observe, identify and understand elements of design in the natural and man made world;
3. To provide opportunities for children to investigate and understand technological principles;
4. To appreciate the safe and appropriate use of tools and develop skills in their use;
5. To develop co-operative, leadership and organisational skills;
6. To permit pupils to direct their own learning to enable a sense of satisfaction and achievement.

2 Teaching and learning style

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. Children critically evaluate existing products, their own work and that of others.

In order to cater for differing abilities, use a range of strategies to match the needs of the children:
• set common tasks that are open-ended and can have a variety of results;
• set tasks of increasing difficulty where not all children complete all tasks;
• group children by ability and setting different tasks for each group;
• providing a range of challenges through the provision of different resources;
• use additional adults to support the work of individual children or small groups particularly in KS1.

3 Design and technology curriculum planning

Design and technology is a foundation subject in the National Curriculum. Through the National Curriculum objectives and key skills, plans reflect the varying stages that children will go through as part of this process.

A balance of work in textiles, food & hygiene, card tech and mechanisms are distributed throughout the year across all year groups. Skill-based objectives are progressive.

We plan the activities in design and technology so that they build upon the prior learning of the children. We build planned progression into subsequent projects and year groups so that the children are increasingly challenged as they move through the school.

4 The Foundation Stage

Children in Reception are encouraged to develop their skills, knowledge and understanding to help them 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.

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

English
Design and technology contributes to the teaching of English in our school by providing valuable opportunities to export the children's literacy skills in a range of contexts and genres, (eg, instructional writing, explanations). 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.

Maths
Design and Technology contributes to the teaching of Maths in our school by providing opportunities to measure and mark accurately using a variety of equipment. We consider learning opportunities such as time for control technology and mass through weighing ingredients. Shape and space are taught through nets for packaging, angles when constructing pop-ups for example and drawing to scale in Key Stage 2.

Art
We encourage children to produce detailed product designs to a high standard using a range of techniques and media and to decorate products to meet plans. Drawn records of the finished product for evaluation purposes and sketches of each stage in the making process are encouraged. Children are also taught to develop accurate designs in 2D and 3D (Key Stage 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. The children use computing programs to control mechanisms.

PSHE
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 and perseverance to achieve personal goals. They also learn about health and healthy diets, personal hygiene and how to prevent disease from spreading when working with food.

This links to a 'Business Enterprise' topic which is an annual event for Y6 pupils which involves children producing their own business plans to raise money for their own end of year trips. During this process, children design and produce jewellery; pop-up cards; bookmarks; cross-stitching; soap making; and 'Toast Tuck and Toppings' to sell to other pupils. Design and technology skills also included in this project are initial market research, evaluating and improving or refining the quality of products made, ensuring product demand.

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. Children recognise their own positive contributions and those of others. 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 Teaching design and technology to children with special needs

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 and nurture developing strengths in other areas that Design and Technology can offer where other curriculum areas may not.

7 Assessment and recording

Teachers assess children's work in design and technology, both by assessing finished pieces and practical activities, and 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. These are then recorded on the school assessment system which records children's progress & highlights coverage of objectives.

8 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 store. This room is not accessible to children. Year groups have access to a range of consumable materials and are able to purchase other materials not already available in school to ensure children are able to produce end products of a high standard. Tools need to be regularly maintained and replaced when necessary.

9 Health and safety

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. A safe working environment and ways of working need to be encouraged from the earliest stage. Safe practices must be discussed and understood by all staff, voluntary helpers and pupils. See appendix 1

10 Communication

Parents and carers are kept informed of developments through seesaw, parent evenings and end of year reports.

Appendix 1: Risk assessment and safe practice for use of tools and food hygiene

Health and Safety

When working with tools, equipment and materials in practical activities and in different environments, including those that are unfamiliar, pupils should be taught:

- about hazards, risks and risk control
- to recognise hazards, assess consequent risks and take steps to control the risks to themselves and others
- to use information to assess the immediate and cumulative risks
- to manage their environment to ensure the health and safety of themselves and others
- to explain the steps they take to control risks

When teaching Design and Technology, Health and Safety issues should be taken into consideration.

All equipment should be stored safely and returned to its correct storage place after use. Hacksaws should be turned inwards. Knife blades should be retracted before they are put away.

Hardboard should be used to protect surfaces when using tools. An adult should always supervise children when using tools. The correct procedures and techniques need to be shown to the children beforehand.

All wood is bought from an educational supplier. 'Donated' wood should not be accepted unless the source has been investigated. Some woods are treated and can be harmful to children.

Children and staff should wear protective clothing when working with paint, glue, modelling clay, or any other 'messy' substances.

If using newspapers or magazines to protect tables, care should be taken that inappropriate articles or photographs are concealed from the children.

Food

Norbreck recognises the importance of cooking and baking as part of the Technology Curriculum and is aware that certain children are allergic to various foodstuffs. All class teachers, as well as the office, have a list which is updated on a yearly basis stating any allergies. Before a Food Technology unit is undertaken, a consent letter is sent home in order that parent's permission is given to allow the child to take part in the activity if it considered necessary. Basic hygiene practices are observed, such as children washing their hands before handling foodstuffs and tying long hair back. The area to be used is to be wiped clean with antiseptic spray before and after use.

Classroom organisation is of the utmost importance for Food Technology lessons. All necessary equipment and ingredients should be in the immediate vicinity and prepared beforehand, ready for use.

The class teacher should exercise vigilant supervision of children when they use potentially dangerous equipment.