Knavesmire Primary School

Design and Technology Policy

Aims and Objectives

Design and technology prepares children to take part in the development of tomorrow's 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 technology, its uses and its impacts. Design and technology helps children to become discriminating and informed consumers and potential innovators.

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 material world and how we live and work in it;
- To develop an understanding of technological processes, products and their manufacture, and their contribution to our society;
- To foster enjoyment, satisfaction and purpose in designing and making.

Teaching and Learning Style

Wherever possible, we teach design and technology concepts through our Big Ideas making cross curricular links where possible. Our principal aim is to develop children's knowledge, skills and understanding and to be positive in their approach to design and technology. We do this through whole class teaching and individual and 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. They have the opportunity to use a wide range of materials and resources, including computing. We recognise that there are widely differing

design and technology abilities in all classes and we ensure that suitable learning opportunities are provided for all children. We achieve this in a variety of ways by:

- Setting common tasks which are open ended and can have a variety of responses;
- Grouping children by ability and setting appropriate tasks for each group, including SEND and AG&T children.
- Providing resources matched to the ability of the child.
- Using Teaching Assistants to support the work of the individual or group.
- Providing extending and challenging activities for AG&T children.
- Ensuring Health and Safety is taken into account when planning lessons.

Design and Technology Curriculum Planning
The school plans design and technology through cross-curricular themes (Big Ideas). We follow the National Curriculum Programme of Study for design and technology for each year group. The long-term plan maps the design and technology contexts studied each term during the Key Stage and makes links with proposed Big Ideas. Big Idea planning gives details of the design and technology aspects to be covered during the Big Idea, including specific objectives for each lesson. The subject leader checks long-term planning at the beginning of the academic year, and coverage is monitored throughout the year. In Early Years, we teach design and technology as an integral part of the Big Idea and through areas of provision. Design and technology makes a significant contribution to the objectives in the EYFS and early experiences include asking questions about how things work, investigating and using a variety of construction kits, developing and making skills and handling appropriate tools and construction material safely and with increasing control.

English
Design and technology contributes to the teaching of English by actively promoting the skills of reading, writing, speaking and listening. Discussions during design and technology lessons enable children to develop their speaking and listening skills, and writing skills are developed through the evaluation of products.

Mathematics
Design and technology contributes to the teaching of mathematics in a number of ways. Children use weights and measures and learn to use and apply

number. Through design and technology they learn to estimate and predict. They develop the skills of accurate measuring and handling and interpreting data.

Computing

Children use computing in design and technology lessons where appropriate. Children use software to enhance their skills in designing and making and use draw and paint packages to model ideas and make repeating patterns. The children have access to the internet to support them in their research and evaluation of existing products.

Personal, Social and Health Education (PSHE) and Citizenship

Design and technology makes a significant contribution to the teaching of PSHE and Citizenship. We encourage 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 set targets and meet deadlines, and they also learn about hygiene when handling food. Groupings allow children to work together and discuss ideas. Through work evaluations, children develop respect for the abilities of other children and a better understanding of themselves.

SEND and AG&T Children

We teach design and technology to children whatever their ability. Design and technology forms part of the school curriculum policy to provide a broad and balanced education for all children. Learning opportunities are matched to the needs of children with learning difficulties. Work in design and technology takes into account the outcomes set in the children's MSP where appropriate. Similarly, opportunities are presented to children of higher ability to provide challenge and extension of knowledge and understanding.

Monitoring and Assessment

Class teachers base judgements about children's work during lessons. At the end of a unit of work, a summary judgement is made about the work of each pupil in relation to the National Curriculum age related expectations. Work is marked following our marking policy. Class teachers make an assessment of children's overall attainment in design and technology at the end of Key Stage One and Two, and progress is tracked in line with the school assessment policy. It is the responsibility of the design and technology subject leader to monitor the standards of children's work and the quality of teaching in design and

technology. The subject leader is also responsible for supporting colleagues in the teaching of design and technology, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in school. The subject leader gives the head teacher an annual summary report identifying strengths and weaknesses. The subject leader makes regular class swaps with class teachers to enable them to discuss design and technology with children and ask questions about their learning. These are recorded and kept in the subject leaders file.

Resources

We have sufficient resources for teaching the design and technology programmes of study. Resources are kept in a central store and sorted into boxes of materials. The school library contains a good supply of design and technology related books for children to use for research and to take home. We have a range of computing software to support teaching and learning, and teachers and children have access to the internet. We incorporate outside agencies to enhance the teaching and learning in design and technology when appropriate.