



Woore Primary and Nursery School

Design & Technology Profile

Introduction

Design and Technology prepares children to take part in the development of today's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become independent 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.

Our Aims

- To enable children to talk about how things work, and to draw and model their ideas;
- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making;
- To develop design and making skills, knowledge and understanding to the best of each child's ability; using and selecting a range of tools, materials and components.
- To foster enjoyment, satisfaction and purpose in designing and making.
- To provide opportunities for all the children to design and make quality products.
- To provide children with the opportunity to explore food and cooking techniques along with healthy eating and environmental issues within food production.
- To develop an ability to criticise constructively and evaluate their own products and those of others.
- To help the children develop an understanding of the ways people in the past and present have used design to meet their needs. To reflect on and evaluate such techniques, its uses and effects.
- to prepare pupils to participate in tomorrow's rapidly changing technologies.

Teaching and Learning

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, 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.

We plan the activities in Design and Technology so that they build on the prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding. Progression is built into the scheme of work across the EYFS and Key Stage 1 and 2, so that the children are increasingly challenged as they move through the school.

We use a skills based approach to teaching and learning using objectives taken from the National Curriculum. We teach DT skills discretely and through our Curriculum themes, ensuring all children access all areas of the Design Technology Curriculum. To facilitate our objectives different teaching styles and methods are used as appropriate. These include small group and individual work.

In Design and Technology, children acquire and apply knowledge and understanding of:

- Cooking and Nutrition
- Textiles
- Structures
- Mechanisms
- Electronic Systems (KS2)
- IT Control and Monitoring (KS2)

Each unit of work studied follows the same structure so that pupils have the opportunity to:

- Research
- Design
- Make
- Evaluate

The level of skill required in each of these areas is also progressive according to age, stage or ability of the children. The children will acquire a wide range of technical vocabulary as they work through the different units of work across the key stages.

The Early Years Foundation Stage

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. 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. Children in reception learn a range of new skills through the EYFS units of work. As reception children are part

of a Year 1 class they also have the opportunity to begin to explore the same themes as those children in Year 1. Our aim is to build on the skills they already have to prepare them for the KS1 curriculum.

Cross-curricular work

The nature of Design & Technology lends itself to many other curriculum areas. Where possible we aim to incorporate other subjects and use the children's skills in these subjects to enhance their work in Design and Technology. Strong links will be made in science, mathematics, art & design, computing and PSHE.

Health and Safety

The safety of the children is the responsibility of the class teacher. The children are made aware of the safe use and correct procedure involved when using tools and equipment in a learning environment and how to follow proper procedures for food safety and hygiene. The children are made aware of the need to be careful and to understand that their actions can affect others. The children build up a range of skills when using equipment to reduce unnecessary risk. All staff, including helpers, are made aware of food safety procedures when working with food to minimise any risks. The children wear protective clothing if necessary.

Assessment

Teachers assess children's work in Design and Technology by making assessments as they observe them working during lessons and through their final piece of work. Teachers collect examples of the children's work which are included in the subject leader's Design and Technology folder. This evidence may be paper-based or electronic.

The Design and Technology Subject Leader is responsible for monitoring the standards of children's work and the quality and breadth of teaching. The leader supports colleagues in the teaching of Design and Technology by informing them of current developments in the subject and by providing a strategic lead and direction for the subject in school. The leader is also responsible for evaluating strengths and weaknesses in the subject and identifying areas for improvement and development.

Resources

Our school has a general stock 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 trolley and the staff stockroom. Where more specialised resources are required, these are ordered prior to each unit being taught.

Inclusion

The pupils are encouraged to fully participate in all aspects of the geography regardless of their race, age or ability. For further guidance refer to the school's Equal Opportunities policy.

Monitoring

The monitoring of the standards of children's work and of the quality of teaching in Design & Technology is the responsibility of the Design & Technology subject leader. Their work also involves supporting colleagues in the teaching of this subject, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. Lesson observations and learning walks are also, occasionally, undertaken and the subject leader regularly reviews evidence of the children's work.