



Design and technology is an inspiring, imaginative and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and skills to draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world.

Our Aims- Intent

The national curriculum for design and technology aims to ensure that all pupils:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and how to prepare food

Additional aims for design and technology in our school 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 foster enjoyment, satisfaction and purpose in designing and making
- To use ICT software to assist our designing and learning.

Teaching and Learning

We use a variety of teaching and learning styles in design and technology lessons. All teachers are encouraged to develop a repertoire of flexible, active learning methods, as well as an understanding of how children learn.

Teaching methods may include a variety of the following:

- Effective strategies for starting and ending lessons, sharing objectives with the children
- Encouraging an active, questioning approach among the children
- Providing opportunities for children to work both individually and as part of groups
- Problem solving, with older children deciding on their own lines of enquiry
- Developing strategies to encourage independent learning
- Focusing on key skills, concepts and attitudes of the subject
- Time for reflection and evaluation



Curriculum Planning

We carry out the curriculum planning in design and technology in two phases: long and medium term planning. Our school uses the National Curriculum 2014 for design and technology as the basis of its long term curriculum planning.

The programmes of study for design and technology are set out for key stages 1 and 2. Our framework shows how design and technology coverage is ensured through a rolling programme, as well as incorporating the Early Years Framework. Our medium term plans give details of each unit of work for each term. They identify learning objectives and outcomes for each unit and ensure an appropriate balance and distribution of work across each term. These list the specific learning objectives for each lesson and detail how the lesson will be taught. We plan the activities in design and technology so that they build upon 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.

The Foundation Stage

We encourage the development of skills; knowledge and understanding that help Early Years children make sense of their world as an integral part of the school's work. 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 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. These activities, indoors and outdoors, attract the children's interest and curiosity.

Contribution of English in other Curriculum areas

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 in 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.

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. The children also use ICT to collect information and to present their ideas.

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. Through their understanding of personal hygiene they also learn how to prevent disease from spreading when working with food.

Spiritual, moral, social and cultural development - Our groupings allow children to work together and they understand how we expect them to do this. Collaborative work in design and technology develops respect for the abilities of others and a better understanding of themselves. In addition, they develop a respect for the environment, for their own health and safety and that of others. They learn to appreciate the value of similarities and differences. A variety of experiences teaches them to appreciate that all people are equally important.



Equal opportunities

Crooks Barn Primary School is an inclusive school and we recognise the need to tailor our approach to support children with special educational needs as well as those who are identified as gifted and talented. We teach design and technology to all pupils, whatever their ability and individual needs. Through our Design and Technology teaching, we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs.

Assessment, recording and reporting

Teachers assess work in design and technology by making observations of the children working during lessons. At the end of a unit of work, children undertake a review of their work that focuses upon an evaluation of the finished product and an overview of the various tasks undertaken. Due to the practical nature of design and technology, evidence of work undertaken by children can be in the form of teacher's notes or as a photographic record. Samples of the design process and end product are also valuable evidence. The design and technology subject coordinator can review evidence of the children's work in their individual DT workbooks.

Monitoring and Evaluation

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 coordinator. 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 are also, occasionally, undertaken and the subject coordinator regularly reviews evidence of the children's work.

Resources

Our school has a wide range of resources to support the teaching and learning of Design Technology across the school. Classrooms have a range of basic resources, with the more specialised equipment being kept in the design and technology store.



Health and Safety

When working with food:

- An adult will be required to supervise activities involving cooking and food handling/preparation.
- When undertaking food activities the appropriate Health and Safety Procedures must be adhered to.
- When working with food all children should follow personal hygiene guidance (tie back hair, clean apron, use of blue plasters and washing hands)
- Teachers should check the dietary needs of the children in their class to identify any foods that should not be available to specific children, or groups of children.
 - Any perishable food should be stored in a fridge.
- Only the equipment in the food cupboard, which is for food use only, should be used.
- Only use equipment set aside to use with food.
- Set aside an area for children to wash their hands.
- Teachers taking part in any food activity should dress appropriately and follow the same procedures as the children with regard to any rules regarding personal hygiene.
- Ensure that all equipment is cleaned and put away in the food cupboard.
- Ensure that all children use their own equipment when tasting food.
- Certain spoons should be identified and used when placing food onto plates for children to taste food, teachers/TA's need to ensure children do not use their own.
- See the school's Health and Safety Policy for further guidance.

All adults leading should ensure that:

- DT equipment is not left out and unsupervised,
Floors and work surfaces are kept clean and tidy and all tools used must be of good quality, in good condition and stored safely.
- Direct safety instructions should be given to children each time they undertake a design and technology activity.
- Children should be given suitable instruction on the operation of all equipment before being allowed to work with it.
- Children should be strictly supervised in their use of equipment at all times. Adult to child ratio must be appropriate to the activity e.g. closer supervision on activities such as use of a glue gun.
 - Children should be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.