

Bolsover Infants and Nursery School

Design and Technology Policy



This Policy has been written in accordance with the wishes of staff, children and Governors of Bolsover Infants and Nursery School.

Date Agreed.....

Signed.....

Art and Design Policy

Aims and Objectives

Design and technology prepares children to take part in the development of our continuously changing world. Creative thinking encourages children to make positive changes to their quality of life. It encourages children to become independent problem-solvers who are able to take risks when planning for and eventually creating products and systems. The children will also be able to look at and evaluate current and past design and technology. The subject will also encourage the children to work independently and as part of a team, which will enhance their ability to develop ideas through group evaluation and critical thinking through questioning and communicating their own and others thoughts and ideas.

The aims of design and technology are:

- develop their design and making skills.
- 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 made world and how we live and work within it;
- to develop an understanding of technological processes, products, and their manufacture, and their contribution to our society;
- to meet the needs of children with different learning styles.

The content of Design and Technology

In design and technology, children acquire and apply knowledge and understanding of:

- materials and components;
- mechanisms and control systems;
- structures;
- existing products;
- quality;
- health and safety.

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, 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 recognise the fact that we have children of differing ability in all our classes, and we 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 differentiation strategies:

- setting tasks that are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty, where not all children complete all tasks;
- grouping children by ability, and setting different tasks for each group;
- providing a range of challenges with different resources;
- having more adults supporting the work of individual children or small groups.

At the early stages of developing capability, children should be able to:

- generate and develop ideas through talking about what their design has to do, handling materials and, where appropriate, drawing;
- increasingly take account of people's needs and wants;
- reflect more on their ideas;
- draw what they have made;
- recognise and begin to select suitable tools and materials;
- apply their previous knowledge and experience;
- suggest achievable ways forward and begin to suggest improvements to their own models.

As children make progress, they should:

- become more involved in finding out information useful to their designing and use their experience of products and applications as the stimulus for ideas;
- use 2D and 3D models to try out and develop ideas as they become more reflective about their designs;
- suggest an increasing number of achievable ways forward and develop simple plans which take into account the resources available;
- start combining and shaping materials to create products which meet their intentions;
- use tools safely and with increasing accuracy.

As children make further progress, they should:

- use a variety of information sources for their research, and set criteria for their designs, which increasingly take account of the views and preferences of the intended user;
- become more familiar with techniques, *eg brainstorming and product analysis to generate ideas*, and have a clearer sense of priorities in their design proposals;
- use a range of modelling techniques and be able to justify the decisions they make;
- plan and evaluate in a more considered manner, and show a greater awareness of constraints and the implications of their designs;
- draw upon a greater range of techniques and skills to create quality products for identified purposes;
- become increasingly competent at matching how they work to the materials and the task.

The Foundation Stage

We encourage creative work in the Nursery and Reception classes as this is part of the Early Years Foundation Stage, which underpins the curriculum planning for children aged from birth to 5. All of the 6 areas of the curriculum are taught through a topic-based approach. The children are increasingly involved in the process of planning and this enhances their ownership of their learning. The children's learning in this area includes using a variety of self-chosen 2-D and 3-D objects and tools such as glue, tape and scissors to allow for early Design and technology skills to be developed. The range of experiences encourages children to use their senses to make connections between all areas of the curriculum.

We provide a rich environment in which we encourage and value creativity and allow for children to be independent and problem solve in the day-to-day activities that they take part in.

Cross curricular links

English

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.

Information and communication technology (ICT)

We use ICT to support design and technology teaching when appropriate. Children use software to enhance their skills in designing and making and use ICT to collect information.

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 independent.

Spiritual, moral, social and cultural development

The teaching of art and design offers opportunities to support the social development of our children through the way we expect them to work within lessons. 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. Their work in general helps them to develop a respect for the abilities of other children and encourages them to collaborate and co-operate across a range of activities and experiences. The children learn to respect and work with each other and with adults, thus developing a better understanding of themselves. They also develop an understanding of different times, cultures and religions through their work on famous artists, designers and craftspeople.

Assessment

· We assess the children's work in Design and Technology while observing them work during lessons. Teachers record the progress made by children

against the learning objectives used at the end of each term. The teacher will identify those children that are not meeting the objectives, those that are meeting the objectives and those children that are exceeding the objectives.

- Children are encouraged to assess and evaluate both their own work and that of other pupils. This helps them to appreciate how they can improve their performance, and what their targets should be for the future. Outstanding work will be shown to the children and celebrated as a way of demonstrating to the children what they can work towards.
- The Design and Technology subject coordinator keeps evidence of the children's work in a file to provide evidence for higher, middle and lower ability children.

Resources

- We have a wide range of resources to support the teaching of Design and Technology across the school. Each year group has a trolley of resources that is easily accessible to the children and teachers and this is ready to be used for art and design lessons. An audit is done by the subject coordinator on a yearly basis and additional general art stock is ordered based on that audit. The class teacher is responsible for ordering any additional resources that are specific to their curriculum objectives. A stock cupboard is also used to store resources that can be accessed throughout the year.

Monitoring and review

- The monitoring of the standards of children's work and of the quality of teaching in Design and Technology is the responsibility of the subject leader. The work of the subject leader also involves supporting colleagues in their teaching, being informed about current developments in art and design, and providing a strategic lead and direction for this subject in the school. The subject leader has specially-allocated regular management time, which is used to review evidence of the children's work, and to undertake lesson observations of art and design teaching across the school.

Celebrations of Success

It is important that children's success in Design and Technology is acknowledged and celebrated appropriately. This will be done through

display inside and outside the classroom. Final presentation of some work to peers and other year groups may be appropriate in celebrating success.

SEN

Teachers should decide:

- how the material should be adapted to meet the needs of the children in the class, particularly if they are not attaining at levels broadly appropriate for their age;
- whether to use the scheme as a resource for offering a child with significant learning difficulties the opportunity to experience a range of work across the key aspects, drawn from the programme of study.

Teachers are best placed to judge whether the learning objectives meet the learning needs of individual children and to adapt these to provide appropriate opportunities for all children to succeed. Some of the teaching activities will need to be adapted to ensure that children with special educational needs of all kinds may participate fully and demonstrate their achievements.

Equal Opportunities

In Design and Technology, it is important that teachers should plan work that offers equal opportunity in respect of gender, race, needs of the most able and those children with special educational needs. Teachers will identify areas of the scheme that they will need to modify and adapt for the children in their class.

More able children

Teachers should decide how the activities should be adapted or expanded to meet the needs of any more able, gifted or talented children in the year group. In deciding how to use this scheme of work, year teams or individual teachers may wish to consider whether opportunities which arise from time to time or offered by the circumstances of the year group suggest particular units or aspects which should be emphasised or expanded.

Gender

Teachers should ensure that Design and Technology is promoted to both sexes, and that the materials used are attractive to all children. Part of our school-improvement plan highlights the need to further support and enthuse boys within the school and through the creative implementation of art and design across the curriculum can help to support this.

Multi-Cultural Themes

Multi-cultural themes are often encountered in Design and Technology, which allows for opportunities to promote understanding.

Children should be encouraged to develop:

- an interest in their local environment and people and places beyond their immediate experience;
- an awareness of cultural and ethnic diversity within our society, while recognising the similarity of activities, interests and aspirations of different people;
- tolerance toward people who hold different values and beliefs.

Health and Safety

Children will use a variety of age-appropriate tools and materials during Design and Technology lessons. The use of tools will be appropriately modelled to the children by the teacher and lessons will be appropriately supervised. The class teacher will be responsible for identifying those pupils that may need additional support, for example when they are considering SEN issues.