



# Design and Technology Policy

## Aims and objectives

Design and technology prepares children to take part in the rapidly changing world. Creative thinking encourages children to make positive changes to their lives. Design and technology encourages children to become 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 of functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and impacts. Design and technology helps children to become discriminating and informed consumers and potential innovators. Our objectives in the teaching 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 things;
- 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 and products, their manufacture and their contribution to society;
- to understand the process of design, make and evaluate;
- to foster enjoyment, satisfaction and purpose in designing and making things.

## Teaching and learning style

The teachers at Ashmole Primary School use 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 evaluating them. We do this through a mixture of whole class teaching and individual or group activities. Within lessons we give the children the opportunity 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 Computing. In all classes there are children of differing ability. We recognise this fact and 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 strategies:

- setting common tasks that are open-ended and can have a variety of results;
- setting tasks of increasing difficulty where not all children complete tasks;
- grouping children by ability and setting different tasks for each group;
- providing a range of challenges through the provision of different resources;
- using additional adults to support the work of individual children or small groups.

### **Design and technology curriculum planning**

Our school uses the Ashmole curriculum themes in each year group as a basis for curriculum planning in design and technology. We also have annual whole school projects where every pupil has the opportunity to design and make something linked to the same theme throughout the school. We carry out the planning in three phases; long-term, medium-term and short-term. The long-term plan maps out the units covered in each term during the key stage. The medium-term plans, adopted from the national scheme identify the learning objectives and outcomes for each unit and show the distribution of work across a term. The short term plans are completed for each design and technology lesson and show the learning objectives and expected outcomes, they detail how the lessons are to be taught. The class teacher keeps these plans in their planning file and the class teacher and subject leader often discuss them on an informal basis. Activities in design and technology are planned to build on the prior learning of the children. We give all children the opportunity to develop their skills, knowledge and understanding. Progression is built into the scheme of work so that the children are increasingly challenged as they move through the school.

### **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 their school experience. We relate this development to the objectives set out in the Early Learning Goals. 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 materials safely and with increasing control. We plan according to the children's interests and provide an enabling environment offering a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion.

### **Contribution of design and technology to teaching in other curriculum areas**

#### **Literacy**

Design and technology contributes to the teaching of literacy in our school by providing valuable opportunities to reinforce what the children have been doing during their literacy lessons. Through discussion the children develop an understanding that people have different views about design and learn to justify their own views and clarify ideas they have for their designs. The evaluation of products requires children to articulate their ideas and to compare their views with those of other people.

#### **Maths**

In design and technology, the children are given the opportunity to use and apply their mathematical skills. They learn how to measure accurately and how to check their results for reasonableness. They apply their knowledge of fractions and percentages to describe quantities and calculate proportions. They learn to read and interpret scales, collect and present data and draw conclusions. In designing and modelling they learn about size and shape.

## **P.S.H.E.**

We encourage a sense of responsibility in following safe procedures when making things. They also learn about personal hygiene, the prevention of disease spreading, health and healthy diets when working with food. Their work encourages them to be responsible and to set targets to meet deadlines.

## **Spiritual, moral, social and cultural development**

We give children the opportunity to work together and give them the chance to discuss their ideas and feelings about their work and the work of others. Through collaborative and cooperative working the children develop respect for the abilities of other children and a better understanding of themselves. They also develop a respect for the environment, for their own health and safety, and for that of others. They develop a cultural awareness and learn to appreciate the value of differences and similarities.

## **Computing**

Computing enhances the teaching of design and technology, wherever appropriate, in all key stages. The children use Computing to collect information and to help present the results from surveys. In Key Stage two they have opportunities to use computer control.

## **Design and technology and inclusion**

At Ashmole Primary school we teach design and technology to all children, whatever their ability and individual needs. Through our design and technology teaching we provide opportunities for all pupils to make good progress. We work to meet the needs of pupils with special educational needs, those with disabilities, those with special gifts and talents and those learning English as an additional language. Assessment against the National Curriculum allows us to consider each child's attainment and progress. This helps to ensure that our teaching is matched to the child's needs. Intervention through School Action and further support will lead to the creation of a Learning Support Programme for children with special educational needs. This may include specific targets relating to design and technology.

## **Assessment for learning**

Teachers assess children's work in design and technology as they observe them during lessons. At the end of a unit of work teachers make a judgement against the National Curriculum levels of attainment. Children are also encouraged to make judgements on how their work can be improved. Teachers then use the levels to plan future work and to make an annual assessment of progress for each child, as part of the annual report to parents. Each teacher passes this information on to the next teacher at the end of the year.

## **Resources**

Our school has a wide range of resources to support the teaching of design and technology across the school. Crates, with materials, tools and other resources used across the design and technology curriculum are kept in the resources room. Design and technology equipment specifically for the foundation stage is kept in the foundation stage store room.

### **Health and safety**

Teachers carry out a risk assessment for each practical lesson in design and technology. Outlines for these can be found in planning folders. Where children are to participate in activities outside the classroom e.g. on a visit to a museum or restaurant, we carry out a risk assessment prior to the activity to ensure that the activity is safe and appropriate for the pupils.

### **Monitoring and review**

The co-ordination and planning of the design and technology curriculum are the responsibility of the subject leader, who also:

- Supports colleagues in their teaching, by keeping informed about current developments in design and technology;
- Gives the head teacher an annual summary report in which she evaluates the strengths and weaknesses in design and technology, and indicates areas for further development;
- Uses specially allocated management time to review evidence of the children's work and to observe lessons of design and technology across the school.

September 2023

Next review – September 2025