

# Design& Technology Policy

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### 1 Introduction

1.1 Design and Technology stimulates creativity and imagination. It provides visual, tactile and sensory experiences and a special way of understanding and responding to the world. It enables children to communicate what they see, feel and think through the use of colour, texture, form, pattern and different materials and processes. Children become involved in shaping their environments through art and design activities. Pupils learn to make informed judgements and aesthetic and practical decisions. Pupils explore ideas and meanings through the work of artists and designers. Through learning about the roles and functions of Design and Technology, pupils can explore the impact it has had on contemporary life and that of different times and cultures. The appreciation and enjoyment of the visual arts enriches all our lives.

### 2. Aims and objectives

- **2.1** The aims of Design and Technology for key stage one are:
  - Design: Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
  - Design: Design purposeful, functional, appealing products for themselves and other users based on design criteria.
  - Make: Select from and use a range of tools and equipment to perform practical tasks.
  - Make: Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.
  - Evaluate: Explore and evaluate a range of existing products
  - Evaluate: Evaluate their ideas and products against design criteria
  - Technical Knowledge: Build structures, exploring how they can be made stronger, stiffer and more stable.
  - Technical Knowledge: Explore and use mechanisms in their products.
  - Cooking and Nutrition: Use the basic principles of a healthy and varied diet to prepare dishes.
  - Cooking and Nutrition: Understand where food comes from.
- **2.2** The aims of Design and Technology for key stage two are:
  - Design: Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
  - Design: Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

- Make: Select from and use a wider range of tools and equipment to perform practical tasks.
- Make: Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.
- Evaluate: Investigate and analyse a range of existing products.
- Evaluate: Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- Evaluate: Understand how key events and individuals in design and technology have helped shape the world.
- Technical Knowledge: Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- Technical Knowledge: Understand and use mechanical systems in their products.
- Technical Knowledge: Understand and use electrical systems in their products.
- Technical Knowledge: Apply their understanding of computing to program, monitor and control their products.
- Cooking and Nutrition: Understand and apply the principles of a healthy and varied diet.
- Cooking and Nutrition: Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Cooking and Nutrition: Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

### 3 Teaching and learning style

- 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 technology. The skills we focus on include: colour, pattern, texture, line, shape, size, form and space.
- 3.2 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;
  - grouping children by ability and setting varied 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.

### 4 Design and technology curriculum planning

- **4.1** Design and technology is a foundation subject in the National Curriculum. Our school uses the National Curriculum a bespoke scheme of work as the basis for its curriculum planning in design and technology. We have tailored scheme to the local circumstances of our school in that we use the local environment as the starting point for aspects of our work.
- 4.2 We carry out the curriculum planning in design and technology 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 design and technology subject leader works this out in conjunction with teaching colleagues in each year group.
- 4.3 Our medium-term plans, which we have adopted from the national curriculum, 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.
- 4.4 Class teachers complete a daily plan for each design and technology lesson. These list the specific learning objectives for each lesson and detail how the lessons are to be taught. The class teacher keeps these individual plans, and the class teacher and subject leader often discuss them on an informal basis.
- 4.5 We plan the activities in design and technology so that they build upon the 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.

### 5 The Foundation Stage

EYFS children make sense of their world as an integral part of the school's work. As the Nursery and Reception class are a part of the Foundation Stage of the National Curriculum, 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 underpin the curriculum planning for children aged three to five. 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 material safely and with increasing control.

**5.2** We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity.

# 6 Teaching design and technology to children with special educational needs

- At our school we teach design and technology to all children, whatever their ability. Design and technology design is a part of the school curriculum policy. This helps to provide a broad and balanced education to all children. 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 against the National Curriculum allows us to consider each child's attainment and progress against expected standards.
- When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors classroom organisation, teaching materials, teaching style and variation so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.
- 6.3 Intervention through SEN Support and EHC plans will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to design and technology.
- 6.4 We enable pupils to have access to the full range of activities involved in learning design and technology. Where children are to participate in activities outside the classroom, for example, a museum or factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

### 7 Assessment and recording

- 7.1 We assess the children's work in art and design whilst observing them working during lessons. Teachers record the progress made by children against the learning objectives for their lessons. At the end of a unit of work we make a judgement against the National Curriculum expected standards and this is recorded on Pupil Tracker this information to plan future work for each child. This method of recording also enables the teacher to make an annual assessment of progress for each child, as part of the child's annual report to parents. We pass this information on to the next teacher at the end of each year.
- 7.2 The art and design subject leader keeps evidence of the children's work in a portfolio. This demonstrates what the expected level of achievement is in art and design in each year of the school.

### 8 Resources

**8.1** We have a wide range of resources to support the teaching of art and design across the school. All our classrooms have a range of basic resources, but we keep the more specialised equipment in the central storage area. This room is accessible to children only under adult supervision.

## 9 Monitoring and review

9.1 The monitoring of the standards of children's work and of the quality of teaching Design and Technology is the responsibility of the Design and Technology subject leader. The work of the subject leader involves supporting colleagues in the teaching of Design and Technology, being informed about current developments in the subject, attending training, booking workshops and providing a strategic lead and direction for the subject in the school. The Design and Technology subject leader gives the headteacher a half termly summary report in which s/he evaluates the strengths and weaknesses in the subject, pupil voice, what went well, what needs to happen next and any extra curricula activities within the subject. The Design and Technology subject leader monitors books and Design and Technology work within the classroom as well as planning again on a half termly basis providing teachers with constructive feedback. The assessment for Design and Technology is done by class teachers on a half termly basis when each topic is complete. The skills go over a whole key stage. Our assessments are uploaded on to 'pupil tracker'. Pupil tracker is then monitored by the Design and Technology coordinator half termly.