

**Pheasey Park Farm School and Early Years Centre**  
**Design and Technology Policy**

**Mission Statement**

We have the motto "Believe and Achieve" to remind everyone in the school community, pupils, parents, staff and governors that we should always have high expectations of ourselves and each other. If we believe we can do it then we can do it.

**Aims**

At Pheasey Park Farm Primary School everyone aims to work together to strive for excellence in learning and behaviour. Every child has the right to achieve their potential in a positive, orderly and stimulating environment. We aim to bring learning alive and encourage confident learners who enjoy thinking, active enquiry and participation.

We aim to value children as individuals and support them to achieve success. The curriculum is responsive to changes in society and in education and promotes responsibility to prepare children to become responsible citizens. The school aims to provide the essential building blocks for future learning as well as fostering at each stage vital social, emotional, intellectual and spiritual developments.

**Curriculum Drivers**

Our **Curriculum Drivers** are:

**Possibilities** - for pupils to be aware of all opportunities available to them and to have high aspirations for the future.

**Resilience** - for pupils to have the courage to bounce back from any setbacks or challenges and maintain a positive outlook on life.

**Diversity** - for pupils to appreciate and understand that each individual is unique and to recognise and celebrate our individual differences.

**Curriculum Intent**

At Pheasey Park Farm, children develop their skills and knowledge in design, structures, mechanisms, electrical control across a range of materials, including food. Pupils use their creativity and imagination to think about important issues, solving real problems as both individuals and as part of a team, often incorporating their knowledge of other subjects such as mathematics, science, art and computing. The children evaluate existing products to assess their effectiveness and look at the work of notable designers and inventors to inspire them when creating their own ideas and designs.

At Pheasey Park Farm Primary School we aim to:

- engage the interests of all children and help sustain their motivation and enjoyment of learning
- maintain and develop the confidence and ability of all children to solve technological problems
- help develop the social skills necessary to work as a member of a team, as well as the ability to work independently when the situation demands

- develop skills by focusing on the three key elements of Materials, Mechanisms and Safety by incorporating
  1. focused practical tasks
  2. product evaluation and investigation
  3. processes of designing and making
- stimulate curiosity, imagination and creativity
- promote the ability to communicate ideas and information through a variety of media
- develop an appreciation of the importance of equality
- develop the ability to identify safety hazards and risks and take appropriate action
- provide the opportunity to design for, and consider the needs of, other people.

### Curriculum Implementation

The primary curriculum states that Design and Technology is an inspiring, rigorous and practical subject. Children should be provided with opportunities to 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 should learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present Design and Technology, children should develop a critical understanding of its impact on daily life and the wider world. It also states that high-quality Design and Technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

The key skills for Design and Technology have been planned to ensure progression between year groups across the school. Design and Technology lessons are taught together within a topic which ensures the children remain focused on their project relating to the topic they are learning about.

### Early Years Foundation Stage

In the Early Years Foundation Stage (Nursery and Reception), Design and Technology is taught through the area of learning known as 'Expressive Arts and Design', in which children are supported to explore and play with a wide range of media and materials. They are also provided with opportunities and encouragement to share their thoughts, ideas and feelings through a variety of activities, including Design and Technology.

### Key Stages 1 and 2

In Key Stage 1 and Key Stage 2, through a variety of creative and practical activities, pupils are taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They carry out projects which can be used in a range of relevant contexts (for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment).

### Key Stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment).

When designing and making, pupils should be taught to:

### Design:

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

### Make:

- select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing)
- 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 their ideas and products against design criteria

### Technical Knowledge:

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

## Key Stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home, school, leisure, culture, enterprise, industry and the wider environment).

When designing and making, pupils should be taught to:

### 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
- 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 (for example, cutting, shaping, joining and finishing), accurately
- 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 their ideas and products against their own design criteria and consider the views of others to improve their work
- 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
- understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages)
- understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors)
- apply their understanding of computing to program, monitor and control their products.

### Cooking and Nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

In Key Stage 1, pupils should be taught to:

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

In Key Stage 2, pupils should be taught to:

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.

### Curriculum Grid

Please see Appendix 1 for the Design and Technology Curriculum Grid for the projects each year group undertake for the current academic year.

### Organisation and Planning

Design and Technology is a foundation subject in the National Curriculum. We carry out curriculum planning in Design and Technology in three phases: long-term, medium-term and short-term. The long-term plans map out the topics covered by each year group. The medium-term plans provide details of the tasks undertaken in each topic for each term and identify the learning objectives and outcomes for each unit. Class teachers plan for individual Design and Technology sessions as part of short-term lesson planning. The short-term plan lists the specific learning objectives for each lesson and details how the lessons are to be taught. The class teacher keeps these individual plans with the class teacher and subject leader discussing them on an informal basis in order to provide feedback. Subject leaders renew these plans, ensuring there is full coverage of the National Curriculum in a logical progression of knowledge and skills. Please see Appendix 2 for Design and Technology Progression of Skills document.

### Teaching and Learning

The children will undertake Design and Technology projects during some of our topics, but not necessarily as a weekly lesson. Sometimes a whole day or two days are devoted to Design

and Technology as part of a cross-curricular topic, known as Curriculum Theme Days. Design and Technology lessons involve a combination of whole class, group and individual teaching. The learning opportunities can be divided into three main areas:

1. Investigative, disassembly and evaluative activities (IDEAs): These activities provide opportunities for the children to explore existing products and to gain skills, knowledge and understanding which can be applied in a design and make assignment.
2. Focused practical tasks (FPTs): Focused practical tasks provide opportunities to learn and practice particular skills and knowledge.
3. Design and make assignments (DMAs): A design and make assignment provides an opportunity for the children to combine their skills, knowledge and understanding to develop products that meet a perceived need e.g. A box for their pizza. In general, DMAs in Key Stage 1 will tend to be shorter in duration and, as children move towards the end of Key Stage 2, their designing and making will become more complex and therefore more time consuming.)

### **Health and Safety**

When leading and undertaking Design and Technology lessons, it is essential that the class teacher ensures that the following points are followed:

- 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.
- children should be taught to respect the equipment they are using and to keep it stored safely while not in use.
- children should be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.

### **Food Hygiene**

When leading and undertaking Design and Technology lessons which involve food, it is essential that the following points are followed:

- pupils and staff will take care to undertake appropriate hand washing and other hygiene related activities prior to preparing food.
- staff will check for any allergies pupils may have prior to handling food.
- pupils and staff working with food must wear aprons designated for cooking.
- all jewellery should be removed and hair tied back.

### **Craft Knives**

Craft knives should only be used by an adult/teacher in the Early Years Foundation Stage and Key Stage 1. Key Stage 2 children may use cutting equipment under close supervision. Staff members should ensure that a cutting mat is used and safety goggles are worn if necessary.

### **Sawing**

Bench hooks and clamps must be used when sawing any material. Safety goggles must be worn and any loose items of clothing or hair must be tucked in.

### **Resources**

Resources, both consumable and non-consumable are located either with each appropriate year group, the Design and Technology cupboard or with the Design and Technology subject

leader. It is the responsibility of each class teacher to ensure they have the resources required for each task undertaken (filling out a requisition form for any materials/equipment that needs purchasing prior to undertaking the topic). If any resources become broken during use, the Design and Technology leader needs to be informed as soon as possible.

### **Assessment**

Assessments in Design and Technology are based on teacher observations and are made continuously during Design and Technology projects. In Key Stage 1 and Key Stage 2, children are required to evaluate their own work and describe what they might change if they were to revisit the activity.

### **Inclusion**

It is important that the Design and Technology curriculum is modified to include all pupils. In order to do this, class teachers have to:

- set suitable learning challenges
- respond to pupils' diverse needs
- overcome potential barriers to learning and assessment for particular individuals and groups of pupils.

By following these principles, it will allow the class teacher to modify the curriculum to remove barriers so all pupils meet the same objective.

### **Special Educational Needs and Disability (SEND)**

The whole school policy in regard to Special Educational Needs and Disability applies to the teaching and learning of Design and Technology. In all classes there are children of differing ability. In recognising this fact, we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child by:

- setting common tasks that are open ended and can have a variety of results
- 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 through provision of different resources.

### **Academically More Able and Talented (AMAT)**

To challenge academically more able children, they will be encouraged to follow lines of thought independently as well as being provided with open-ended questions and tasks.

### **Cross Curricular Links**

Design and Technology has many links with other subjects through the chosen topics. Children acquire a broad range of subject knowledge and draw on the disciplines of ICT, English, Mathematics, Science, Art and Design, PSHE and Citizenship, Geography and Music.

### **Roles and Responsibilities**

The Headteacher will:

- support and encourage staff, praising good practice and supporting staff development, in-service training (particularly for the Design and Technology Leader) and resources.

The Design and Technology Leader will:

- monitor Design and Technology within the school through the monitoring of planning, children's books, children's completed projects and curriculum walks
- keep up to date with new developments and inform staff
- encourage other members of staff in their Design and Technology teaching and give support where appropriate
- ensure that Design and Technology resources are available and appropriate to the needs of the staff
- ensure that Design and Technology keeps an appropriate profile within the school, through displays etc (e.g. by carrying out a curriculum walk every term and reporting findings to teachers and by encouraging Design and Technology displays that reflect progression throughout the school)
- keep a portfolio for Design and Technology that will include photographs of pupils at work, curriculum walk reports, examples of planning and examples of pupils' work
- audit resources regularly and take overall responsibility for equipment and resources.

The Class Teacher will:

- be responsible for the planning and teaching of Design and Technology as set out in this policy

The Teaching Assistant (TA), when available during Design and Technology lessons, will:

- support the class teacher in delivering Design and Technology, and in particular support those children with Special Educational Needs where timetabled to do so.

### **Equal Opportunities**

At Pheasey Park Farm Primary School we recognise that in each class there are children of different abilities and we seek to ensure that every child is able to access the curriculum at their level. In our planning and teaching we aim to provide support and extend those children of lower or higher ability to ensure each child achieves. We look for ways to enable every child to present their work whether it is through written evidence, drawings or annotated scribing by an adult, as well as through the use of ICT to record ideas. By incorporating varied methods of recording, no child should be disadvantaged by their abilities in other areas such as Literacy. Visual, auditory and kinaesthetic learners are supported and planned for in accordance with their needs.

### **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 Design and Technology Curriculum Leader. The work of the subject leader also involves supporting colleagues in the teaching of Design and Technology, being informed about current developments in the subject and providing a strategic lead and direction for the subject in the school. The Design and Technology Curriculum Leader provides the headteacher with an annual report in which they evaluate the strengths and weaknesses in the subject and indicates areas for further improvement.

**Policy for:** Design and Technology

**Completed by:** Mrs. E. Page

**Date:** January 2020