

Blofield Primary School

Design Technology Policy

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Policy statement

At Blofield Primary School all children follow a broad and balanced DT curriculum. Design and technology offers children a chance to use creative thinking and create products with purpose.

As a subject, Design and Technology combines skills, knowledge and concepts to enable children to tackle real problems. It promotes analysis, problem solving, practical exploration and evaluation skills. Design Technology helps all children to become informed consumers and potential innovators.

Our aims in the teaching of design and technology are to allow pupils to:

- Develop design and making skills.
- Develop knowledge and understanding.
- Use a wide range of tools and materials.
- Learn about health and safety and protective measures.
- Work individually and within a group in a variety of contexts.
- Develop the capability to create products of a high standard through skills and understanding.
- Promote creativity and innovation.
- Explore the man-made world and encourage discussion of how we live and work within it.
- Develop an interest in and understanding of technological processes and the role of manufacturing in society.
- Learn the principles of nutrition, healthy eating and how to cook.
- To evaluate their work and the work of others.

Intent

We believe that high-quality D.T. lessons will inspire children to think independently, innovatively and develop creative, procedural and technical understanding. Our D.T. curriculum provides children with opportunities to research, represent their ideas, explore and investigate, develop their ideas, make a product and evaluate their work. Children will be exposed to a wide range of media including textiles, food and woodwork; through this, children will develop their skills, vocabulary and resilience.

We emphasise the importance of Design Technology in the wider world. Children develop a critical understanding of its impact of D.T. on daily life and its relevance in our rapidly changing world.

Implementation

The design and technology curriculum at Blofield is based upon the 2014 Primary National Curriculum in England, which provides a broad framework and outlines the knowledge and skills taught in each Key Stage.

In order to maintain a high profile of D.T. at this school, we plan for a D.T. week or challenge every term which spans across the school. This ensures that D.T. is awarded a significant amount of time which in turn allows the children to master specific skills and become absorbed in their D.T. learning. It also supports progression across the school, in line with the curriculum, as each year group will have a focus more challenging than the previous year, yet building on skills they have already learnt.

In addition to these D.T. weeks, D.T. is also embedded into half-termly topics and explored in Forest School. Each year group is given the opportunity to take part in a whole term of Forest School with a specially Forest School trained teacher, where they practise a range of skills, such as cutting, hammering and manipulating materials for a specific outcome. This is child-led and enables each child to gain 'real-life' experiences, take risks and problem solve on their own. Additionally, each week during this time the children have a chance to cut, prepare and cook food on the fire.

Impact

Children will have clear enjoyment and confidence in design and technology. They will develop the creative, technical and practical expertise needed to perform everyday tasks and to excel in a range of practical tasks. Children will 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 and critique, evaluate and test their ideas and products and the work of others. They will understand and apply the principles of nutrition and learn how to cook.

Children 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. High-quality Design and Technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

VALUES AND ATTITUDES

All pupils will:

- Be encouraged to develop an interest in designing, making and evaluating activities, through the implementation of a broad and balanced curriculum.
- Be able to view their work on display around the school, thus promoting their self-esteem and encouraging a respect for the school environment.
- Be involved in evaluating their own work. This should help future progress.
- Be encouraged to produce their best work at all times. This will engender a sense of pride and satisfaction on completion.

1. Early Years Foundation Stage (EYFS)

In the EYFS (Early Years Foundation Stage) pupils are given the opportunity to explore texture, colour, shape and form.

The children will learn to safely use and explore a variety of materials, tools and techniques. They will experiment with design, texture, form and function. They will think about the uses and purposes of materials and represent their own ideas.

2. The National Curriculum Key Stage 1

The National Curriculum prescribes that at **Key Stage 1** pupils should be taught:

The knowledge, understanding and skills needed to engage in an iterative process of designing and making, and work in a range of relevant contexts.

Design

Design purposeful, functional and 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 accurately.

Select from and use a 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, such as levers, sliders, wheels and axles, in their products.

Cooking and nutrition

Use the basic principles of a healthy and varied diet to prepare dishes.

Understand where food comes from.

3. The National Curriculum Key Stage 2

The National Curriculum prescribes that at **Key Stage 2** 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.

Design

To use research and identify criteria to inform the design of innovative, functional and appealing products that are fit for purpose, aimed at particular individuals or groups.

To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design (CAD).

Make

Select from and use a wider range of tools and equipment to perform practical tasks 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 to shape the world.

Technical knowledge

Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Understand and use mechanical systems, such as gears, pulleys, cams, levers and linkages, in their products.

Understand and use electrical systems, such as series circuits incorporating switches, bulbs, buzzers and motors, in their products.

Cooking and nutrition

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.

4. Subject planning

Long-term plans outline the broad content of the curriculum and the time allocation for the teaching of design and technology. In addition, they establish a framework for progression in pupils' learning (see progression of skills chart appendix 1).

Medium-term plans are more detailed plans for what will be taught during each term. They include the way the subject will be taught, resources needed/used and the assessments that will be undertaken to ascertain improvement and inform future planning. In addition, they include detailed learning objectives and outline the teaching and learning activities to be undertaken.

5. Learning environment

Activities are organised at the teacher's discretion and according to the availability of materials. Design and technology activities may be carried out individually, as a small or large group, or as a whole class activity.

Teachers will make provision for varying learning styles to be utilised.

Planning for design and technology is provided for in medium and long-term plans.

6. Assessment and recording

Teacher assessment in design and technology can measure many different aspects within the design process. Teachers will assess pupils':

- Knowledge of tools, materials and equipment.
- Ability to record and communicate their design ideas in a clear manner
- Personal qualities and attitudes towards their work.
- Ability to explain what they have created and how.
- Ability to use tools and materials safely and effectively.
- Ability to evaluate both their work and the work of others.

The majority of assessments conducted will be through observation and discussion.

A selection of work may be retained as evidence or photographed for this purpose.

The subject leader

The school's appointed subject leader(s) will oversee the continuity of the subject and the progression of teaching and learning within annual and medium-term plans.

They will monitor the quality of teaching and the standard of work produced.

The subject leader will offer support to colleagues and share their expertise and experience.

They will encourage staff and pupils to be creative and advise teachers on teaching methods they may wish to explore.

Resources

Each classroom has access to basic design and technology resources maintained by the subject leader(s).

Learning resources are held in the resource area.

Health and safety

Certain health and safety concerns are inherent with design and technology, including the storage of materials and tools and the use of equipment within lessons.

Children are instructed in the correct use of equipment and tools and the specific dangers of using heated or sharp resources.

Children are supervised at all times during activities.

A risk assessment covering the use of saws and other sharp tools, along with heated tools, such as glue guns, has been conducted and is updated as needed.

Children are only allowed to use a lower temperature glue gun under 1:1 supervision. An adult must use a glue gun at all other times. The use of glue guns will be considered alongside all viable alternatives such as adhesive tapes, blue tack, string and other fasteners, to ensure the most suitable materials are used for each project.

A fire safety blanket must be kept with the cooker at all times.

If cooking is taking place in the classroom, the cooker must be returned in a suitably clean and tidy condition after use.

Parent helpers must be supervised when cooking with groups of children.

Children must follow hygiene procedures and obey rules during cooking sessions.

Equal opportunities

Equal opportunities are addressed in the whole school Equality Policy and care is taken in design and technology lessons to ensure all pupils are provided opportunities to experience the range of activities on offer.

Contribution of design and technology in the core curriculum

English

Design and technology encourages children to ask questions about the starting points for their work. They learn to compare ideas and approaches and to express their feelings.

Maths

Design and technology allows children opportunities to develop their understanding of shape, pattern, space and dimensions.

I.T. (Information technology)

I.T. is used to provide children with additional equipment, extending the possibilities for developing, recording and sharing their work.

PSHE (Personal, Social, Health & Economic Education)

In design and technology lessons children are taught to discuss how they feel about their own work and the work of others.

SMSC (Spiritual, Moral, Social and Cultural development)

Design and technology offers opportunities for social development. Working in groups allows children to learn from each other and to share ideas and feelings. Design and technology helps them to develop a respect for the abilities of other children and encourages collaboration.

Policy review

This policy will be reviewed at the end of a three year period in consultation with the Headteacher and teaching staff.