



# BORROW WOOD PRIMARY SCHOOL

## Design and Technology Policy

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### **Rationale**

Design and Technology is essential to prepare pupils to participate in tomorrow's rapidly changing technologies. Teachers encourage children to develop their investigating, designing, making and evaluating skills by thinking and intervening creatively. Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils 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 acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils 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.

Planning should be linked to the "Big questions" as suggested in the Challenge Curriculum that the school has signed up for. These can be viewed on their website and should drive Design and Technology planning and children's learning.

### **Aims**

- To develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- To 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.
- To critique, evaluate and test their ideas and products and the work of others.
- To understand and apply the principles of nutrition and learn how to cook.

### **Objectives**

- To develop the child's ability to design, make, evaluate and apply technological knowledge.
- To engage in the 'iterative' process of designing and making, to resolve problems or generate solutions.
- To develop manipulative skills using appropriate tools and equipment.
- To complement other areas of the curriculum.
- To ensure that pupils know how to access relevant design and technology information.
- To develop the child's ability to apply the technical knowledge and understanding when designing and making functional and practical items.

- To develop the children's ability to cook and apply the principles of nutrition and healthy eating.
- To link design and technology to life skills, particularly the ability to feed themselves, and others, well and affordably, now and in later life.
- To develop the ability to work in a variety of ways including, working together in groups, independently, in partners and as a whole class.
- To follow the new curriculum for design and technology making sure that all statutory objectives are covered.

## **National Curriculum**

All year groups will follow the new design and technology curriculum. Within the curriculum, there are two main strands; designing and making and, cooking and nutrition. The key objectives of each strand are below. Full details can be found in the National Curriculum 2014.

### **Key Stage One**

- Design
  - Design purposeful, functional and appealing products, based on design criteria
  - Generate, develop, model and communicate their ideas
- Make
  - Select from and use a range of tools and equipment to perform practical tasks
  - Select from and use a wider range of materials and components
- 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 in their product
- Cooking and Nutrition
  - Use the basic principles of a healthy and varied diet to prepare dishes
  - Understand where food comes from

### **Key Stage Two**

As above and including:

- Develop an understanding of how key events and individuals in design and technology have helped shape the world
- An increased emphasis on using tools and equipment accurately
- Explicit requirements when designing and drawing for children to use a more technical range of drawing techniques including 'computer aided designs'
- Understand and use mechanical and electrical systems in their products
- Apply their understanding of computing to program, monitor and control their products
- Prepare and cook a variety of savoury dishes, using a range of cooking techniques
- Understand seasonality of ingredients and know where they are grown, reared, caught and processed.

## **Children's Experiences**

The school will provide these design and technology experiences through:

- The Foundation stage curriculum.
- Making design and technology an integral part of the school experience.
- Using and applying design in practical, real life and problem solving situations using the appropriate design and technological language.

## **Equal Opportunities**

We believe that a broad a balanced design and technology education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability.

- We ensure that all our children have the opportunity to gain design and technology knowledge and understanding regardless of gender, race, and class, physical or intellectual ability.
- Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias.
- We aim to teach design and technology in a broad global and historical context.
- We value design and technology as a vehicle for the development of language skills, and we encourage our children to talk constructively about their designing and making experiences.
- We recognise the particular importance of first-hand experience for motivating all children.
- We recognise that design and technology may strongly engage our gifted and talented children and we aim to challenge and extend them.
- We aim to ensure that teaching is matched to children's individual needs.

## **Assessment**

We use assessment to inform and develop our teaching.

- Throughout the topic, teachers check understanding of the design brief, provide constructive feedback on the making process and help the children develop their evaluation skills by modelling the evaluation process and encouraging children to evaluate and improve their own work. These activities enable the teacher to assess the children on their design and technology skills, knowledge and understanding.
- Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve through teacher feedback, peer assessment and self-assessment.
- After the completion of a topic teachers are able to assess children's attainment linked to the aims and objectives.

## **Health and Safety**

The children's safety is paramount and therefore all risks during lessons are assessed.

In all instances where there is a potential risk, teachers consult Be Safe (Health and Safety in School – science and technology).

## **Resources**

Design and Technology resources are located in a central store in the upper school building, including design related topic books. Auditing of resources is undertaken in the summer term annually. Members of staff inform the coordinators of any requirements for new apparatus.

## **Monitoring and Review**

It is the responsibility of the design and technology subject leader to monitor the standards of children's work and the quality of teaching in design and technology. The design and technology subject leader is also responsible for supporting colleges in the teaching of design and technology, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school.