



### **What is Design and Technology?**

Design and technology is an inspiring and practical subject. Using creativity and imagination, pupils design and make products that solve real problems within a variety of contexts, considering their own and others' needs, wants and values. Design and Technology encourages children to use maths, science, computing and art. Children learn how to take risks, become resourceful, innovative, enterprising and reflective. 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. Design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of our school.

### **Intent**

**The National Curriculum for Design and Technology aims to ensure all pupils:**

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook

### **Implementation**

Clear and comprehensive scheme of work in line with the National Curriculum for EYFS and KS1.

Whilst the EYFS and National Curriculum forms the foundation of our curriculum, we make sure that children learn additional skills, knowledge and understanding and enhance our curriculum as and when necessary.

Delivery of design and technology projects with a clear structure. Each year group will undertake a construction topic, a textile topic and a food/drink topic.

Delivery showing clear following of the design process where each project will follow: research, design, make and evaluate.

A range of skills will be taught ensuring that children are aware of health and safety issues related to the tasks undertaken

Clear and appropriate cross curricular links to underpin learning in multi areas across the curriculum giving the children opportunities to learn life skills and apply skills to 'hands on' situations in a purposeful context.

Children will undertake design tasks and use skills from across the curriculum to fully explore the design process evaluating work ensuring that it is of the highest possible quality.

Independent learning: In design technology children may well be asked to solve problems and develop their learning independently. This allows the children to have ownership over their curriculum and lead their own learning in Design Technology.

Collaborative learning: In design and technology children may well be asked to work as part of a team learning to support and help one another towards a challenging, yet rewarding goal.

Children will have clear enjoyment and confidence in design and technology that they will then apply to other areas of the curriculum

Children will ultimately know more, remember more and understand more about Design Technology, demonstrating this knowledge when using tools or skills in other areas of the curriculum and in opportunities out



### **Impact**

Children will have clear enjoyment and confidence in design and technology that they will then apply to other areas of the curriculum.

Children will ultimately know more, remember more and understand more about Design Technology, demonstrating this knowledge when using tools or skills in other areas of the curriculum and in opportunities out of school.

The large majority of children will achieve age related expectations in Design Technology.

As designers children will develop skills and attributes they can use beyond school and into adulthood.

### **Key Stage 1**

#### **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**

- choose and use a range of tools and equipment to perform practical tasks such as cutting, shaping, joining and finishing, including construction materials, textiles and ingredients, according to their characteristics.

#### **Evaluate**

- explore and evaluate a range of existing products and their own ideas against their work.

#### **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 basic principles of a healthy diet to prepare dishes and know where food comes from.

### **Equal Opportunities and Inclusion**

All pupils irrespective of ethnicity, religion, gender or ability are given equal access to the Design Technology curriculum where possible.

Able, gifted and talented pupils will be supported through the subject developing analysis, thinking skills and evaluation techniques. Teachers will aim to anticipate sensitivities linked to ethnicity, religion and other differences.

## Health and Safety

There are significant health and safety issues relating to both the use of tools within the classroom and to health and hygiene when preparing food. We will ensure that all planning takes into consideration the risks associated with DT lessons and that any relevant risks identified are minimised. All children are made aware of the rules that apply whilst working within DT lessons and safe use of tools and hygiene will be clearly discussed with the child/group of children or class before the lesson begins.



To minimise the risks we will ensure:

- Pupils will be taught to use the correct tools for tasks.
- Tools must be used under the supervision of an adult.
- Pupils must consider health and safety issues and consequences and operate in a safe and hygienic manner.
- Risk Assessments will be included in the planning and reviewed annually.
- The DT leader will keep staff informed about the latest up to date Health and Safety updates and regulations.
- Pupils will be taught the dangers of using tools inappropriately.

## How to help your child at home

- Exploring and experimenting with different materials.
- Finding different ways of fixing materials together.
- Thinking of your designs and working out on paper first what it would look like and the resources needed.
- PVA glue, sellotape, masking tape stapler, hole punch, stapler scissors are some of the tools needed to learn to use appropriately for a task.
- Examining designs of products you may buy at the shops.
- Talking about the different aspects of products



## Values

We aim to teach children to uphold, where applicable, British Values and a mutual respect and tolerance of those with different faiths and beliefs. We are a Living Values school and each month the children focus on one value within every area of the curriculum.

Through our SMSC provision (Spiritual, Moral, Social & Cultural) we enable pupils to develop their self-Knowledge, self-esteem, & self-confidence. Pupils learn right from wrong and to respect other cultural differences.

## Useful Websites

<https://www.teachingideas.co.uk/subjects/dt>

<http://primarygamesarena.com/Design-and-Technology>

<https://www.planbee.com/design-technology/ks1-design-technology/year-2-design-technology>