

## **DESIGN & TECHNOLOGY**

### **INTENT**

Design and Technology is an inspiring and practical subject; it encourages children to learn to think creatively to solve problems. At Malmesbury, we encourage children to use their creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. The children are given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.

### **IMPLEMENTATION**

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in a process of designing and making. The children work in a range of relevant contexts (for example home, school, leisure, culture, enterprise, industry and the wider environment).

When designing and making, the children are 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 diagrams, prototypes, pattern pieces and computer-aided design

#### **Make**

- select from and use a wide range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities



## IMPLEMENTATION

### 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
- understand and use electrical systems in their products
- apply their understanding of computing to program, monitor and control their products

Key skills and key knowledge for D and T have been mapped across the school to ensure coverage of NC objectives and progression between year groups. When designing the curriculum to meet the needs of children at Malmesbury, we included a food and nutrition unit once a year as we felt that an understanding of food as part of a healthy lifestyle was of the utmost importance. D and T is taught once a term so children learn three topics across the year. Lessons are taught as a block so that children's learning is focused throughout each unit of work; each unit is cross-curricular. For example, in year 4 children use textiles to make an Anglo-Saxon money container which links to their history topic.

- Work is saved through Google Classroom.



## IMPACT

We ensure the children:

- 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 for a wide range of users and 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. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child

The design of our curriculum is high quality, well thought through and planned. The impact of this is measured and this information will be monitored by the Design and Technology Subject Leader; this data is used to ensure teaching is targeted and appropriate for each pupil, class and year group as well as to feedback on progress to SLT and stakeholders. The impact is measured in a number of different ways:

- Learning walks and lesson observations
- Looking at children's books
- The pupil's voice about their learning

Through our curriculum, 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.

