



## **Subject Rational: Design and Technology**

Design and Technology prepares children to deal with tomorrow's rapidly changing world. It encourages children to become creative problem solvers and thinkers as individuals and part of a team. It enables them to identify needs and opportunities and to respond to them by developing a range of ideas and by making products and systems. Through the study of Design and Technology, they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industry. This allows them to reflect on and evaluate past and present technology, its uses and impacts.

### **Curriculum Intent**

The Design and Technology curriculum will enable children to learn and practice the key skills and knowledge as set out in the National Curriculum. Through Design and Technology at Calverley Parkside Primary School, pupils will:

- 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.
- 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.

In addition to the National Curriculum aims, our school vision sets out the following aims which will be achieved through the teaching of high-quality Design and Technology sequences of learning:

- Pupils who are enjoying their learning.
- Preparing pupils for modern-day life.
- Instilling a lifelong love of learning.
- Pupils developing independence and effective team-working skills.
- Pupils being challenged within a supportive environment.

The Design and Technology reflects our school values in the following ways:

### **Ready:**

*We keep going when things get difficult*– A key element of our design and technology curriculum, particularly in KS2, is overcoming obstacles and barriers. When making a product, children will be encouraged to constantly evaluate what they are doing and consider ways in which they can adapt their designs to improve them.

*We prepare for the future by setting high expectations of ourselves*– We allocate time in each DT project to ensure that children have investigated existing products and ideas, which in turn helps them to set high expectations of themselves. We also ensure that our planned DT projects enable the children to develop skills and knowledge which will help to prepare them for the

future

**Respectful:**

*We look after our environment and equipment*– Children will be taught how to use a wide range of equipment safely and effectively.

**Responsible:**

*We follow instructions first time, every time*– The importance of listening carefully to instructions will be constantly revisited, particularly in instances where specialist equipment is being used.

**How is our Design and Technology curriculum implemented?**

Each year group throughout Key Stages 1 and 2 will study three Design and Technology projects each year. Throughout the key stages, there will be a mixture of the main aspects of DT. These are:

**Construction**

**Textiles**

**Food and Nutrition**

Projects may be covered as one lesson each week over a number of weeks or taught in one 'block'.

Projects have been planned in such a way that each one builds on the key skills and knowledge from earlier projects. Teachers are provided with planning guidance which outlines a suggested structure for planning a sequence of learning in Design and Technology.

Design and Technology is very cross-curricular and draws upon subject knowledge and skills within a range of other subjects including maths, science, history and art.

**What is the intended impact of Design and Technology?**

An integral part of our DT work is developing the children's ability to reflect on their own work and make decisions about techniques and materials. An element of this will include the children self-assessing their own work where appropriate, highlighting successes and areas to develop. As children move into and through KS2, they will be encouraged to be doing this as they progress *through* a project, not just at the end. For example, if they are constructing a Roman catapult and the firing mechanism is unstable, they will be encouraged to consider how it can be strengthened to make the catapult more effective.

At the end of each project, teachers will make a judgement which states whether or not children are working at, towards or beyond the expected standards for their age. These will be used to inform end-of-year reports to parents.

At the beginning of each unit of work, children will have an opportunity to demonstrate their prior knowledge and the links to previous projects will be made clear to them. For example, at the beginning of the year 5 'Rainforest Masterchef' project, the children will be told that they will be practicing their ability to cut and prepare ingredients safely, but they will also be making hot food in this unit whereas previously they had been focusing on preparing cold foods. Our DT curriculum provides sufficient opportunities for planned revisits of previously learned knowledge, concepts and procedures. This is to ensure that, once learned, knowledge becomes embedded in pupils' memories.

In addition, the teaching of Design and Technology will support the school's vision and values in the ways previously described.

**Special Educational Needs and Disability**

We recognise that pupils with SEND have a range of different needs and starting points. Some of our pupils have severe, complex or profound needs that have a significant impact on their cognitive development, especially the way that they are able to make alterations to their long-term memory. Teachers are ambitious for all pupils including those with SEND, developing and adapting the curriculum so that it is coherently sequenced to all pupils' needs, starting points and aspirations for the future; acquiring the knowledge and cultural capital they need to succeed in life.

### How is D.T. enabled in the Early Years?

In Early Years D.T. is taught through the Specific area of **Expressive Arts and Design** and is enabled through for example:

- Providing resources for mixing colours, joining things together and combining materials, demonstrating where appropriate.
- Providing children with opportunities to use their skills and explore concepts and ideas through their representations.
- Extending children's experience and expanding their imagination through the provision of pictures and paintings.
- Making materials accessible so that children are able to imagine and develop their projects and ideas while they are still fresh in their minds and important to them.
- Providing learning opportunities indoors and outdoors.
- Demonstrating and teaching skills and techniques associated with the things children are doing, for example, showing them how to stop the paint from dripping.
- Introducing children to a wide range of music, painting and sculpture.
- Encouraging children to take time to think about painting or sculpture that is unfamiliar to them before they talk about it or express an opinion.