

# Ilam CE Primary

## Design Technology Curriculum Statement

### **Intent**

At Ilam CE Primary School we consider Design and Technology to be an inspiring, rigorous and practical subject. Design and Technology encourages children to learn, think and intervene creatively to solve problems both as individuals and as members of a team. We passionately encourage children to use their creativity and imagination, to design, make and evaluate products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, art and in particular the Forest School activities. We embrace our class topics and whole school books in inspiring our lessons, and proudly display the work of our children throughout the school. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses, development and its effectiveness and children are encouraged to become innovators and risk-takers. Design and Technology is a subject which establishes life skills such as perseverance, adaptation, team work and leadership. Our children are taught to be dynamic and to implement plans while realising that there may be room for improvement which can be reflected upon allowing them to take responsibility for their own learning.

### **Implementation**

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in the process of designing and making. As the children progress through the school, these key skills and knowledge are deepened while learning is carefully differentiated to ensure all children a sense of achievement. The children work in a range of relevant contexts (for example home, school, leisure, culture, enterprise, industry and the wider environment). At Ilam CE Primary we provide opportunity to use a range of materials and techniques while utilising our beautiful outdoor space where possible. Children in Key stage 1 and 2 have Design and Technology lessons time tabled each week. Reception children in the Hedgehog class have a range of activities accessible daily designed to enhance their critical thinking. Our children take great pride in their work and we celebrate it both with them and with parents. The evaluation process is considered a suggestion for improvement and children understand that this does not mean failure. Learning through investigation trial and experimentation in a happy, safe and stimulating environment is key to this resilience.

When designing and making, the children are taught to confidently understand the following key skills:

#### *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, and annotated sketches.

#### *Make*

- Select from and use a wider range of tools and equipment to perform practical tasks (for example,

cutting, shaping, joining and finishing) safely, sensibly and 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 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.

Key skills and key knowledge for Design and Technology have been mapped across the school to ensure progression between year groups. This also ensures that there is a context for the children's work in Design and Technology, that they learn about real life structures and the purpose of specific examples, as well as developing their skills throughout the programme of study. Extra-curricular clubs offered to the children at a reasonable price so as to ensure opportunity for all children while still encompassing the key skills of Design and Technology. Our baking club is a particularly popular choice!

### **Impact**

We ensure the children have opportunity for new experiences and that we meaningfully link these to other areas of learning. For example, the children experience new foods which in turn can be linked to learning in PE and healthy eating which leads to the children making positive future decisions in life. Furthermore, children understand and apply the principles of nutrition and learn how to cook. Children will design and make a range of products in all classes, from the reception children in Hedgehogs making Diwali sweets, to the Key Stage 2 children in Kingfishers making biscuits. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child

At Ilam CE Primary School we also ensure that children develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. Children learn how to take risks, becoming resourceful, resilient, 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. Importantly, they become reflective learners and transfer skills to other subjects and to society later in life. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation. In turn we fulfil our school values in allowing our children to grow creatively into well rounded, resilient and confident 21<sup>st</sup> century citizens who aspire for the best for themselves and their community.