

## **Design Technology**

### **Intent statement/ rationale**

At Elmlea Schools Trust, our Design Technology curriculum aims to inspire, challenge, and motivate children to become resilient and reflective learners who can work alongside each other, practise key skills and create meaningful products. Across all key stages, children are taught the key skills needed to design, create, and evaluate. These skills are taught in an age-appropriate way and children are encouraged to use and apply these skills across the whole curriculum. Children are given opportunities to work alongside their peers, so that they can learn to communicate ideas effectively and appreciate the differing opinions of others. We aim for all children to become reflective thinkers and encourage children to solve problems as they arise to help build their resilience and independence. Alongside our Science and PSHE curriculum, we teach children about making healthy food choices as well as teaching the skills needed to create healthy dishes.

### **Hyperlink to curriculum map and curriculum map**

### **Implementation**

In EYFS, the curriculum has been designed to give children daily opportunities to practise key skills, either independently or with the support of a teacher. Indoor and outdoor resources are made readily available to the children and they are encouraged to work independently, with support if needed, or with their peers. Throughout the year, children have to opportunity to use their skills to work on specific projects. Children will follow a simple brief and if needed, children will be supported in using and selecting appropriate tools. They are encouraged to celebrate their successes through discussions and reflect on their work by thinking of ways it could be improved. Technical language is introduced and used within each topic and pupils use and apply this knowledge with increasing independence.

In KS1, Design Technology is taught by the class teacher. Throughout the year, each year group will work on at least three main projects which link to their year group termly topic. Vocabulary is introduced at the start of a topic and teachers encourage children to use this throughout the process. The significance of design is highlighted in KS1 and children are encouraged to discuss and share their ideas before recording their own design. The labelling of designs challenges children to use the appropriate vocabulary and give technical reasons for their choices. Teachers model key skills and safety information is discussed. During the making process, children are encouraged to practise and develop these skills with growing independence as they move through the phase. The evaluation process is a key part to children's learning. Reflection of their, through discussion with their peers enables them to celebrate their successes and gain resilience when something needs changing. Pupils are introduced in the concept of healthy eating and hygienic food preparation alongside being taught basic cooking skills.

In KS2, Design Technology is taught by the class teacher. Each year group works on three main projects which link with either the overarching topic or a science unit of work. Technical knowledge forms the basis of the chosen projects to enable clear links to be made between the STEM subjects of science, technology, engineering and maths, The processes of designing, making and evaluating products are highlighted throughout the projects to enable children to feel confident with these key elements of the subject. Pupils are taught how to work within a design team and are encouraged to share and clarify ideas through communication. Through the design element of the project, pupils are encouraged to draw annotated diagrams and sketches which communicate their intended designs. During the design and making process, the practical application of mathematical skills is

highlighted. The cooking and nutritional elements of the subject are carefully and purposefully linked with science and PSHE to enable the life skills of healthy eating and the ability to prepare a balanced meal or snack to be learned. Technical vocabulary is introduced and used through the duration of the project and links to the STEM subjects are made explicit.

### Enrichment and support

In addition to our curriculum lessons, pupils' learning is enriched through our annual STEM Week, where they have the opportunity to work as part of a team to design, build and solve real life problems by linking their scientific and design technology skills. During this week, they are introduced to engineering as a potential career choice and visiting speakers provide role models for STEM subjects and careers.

Teachers support pupils to develop their design and technology skills through modelling and scaffolding their learning. Challenge is provided by encouraging independence both practically and through written and verbal communication. Independence in the accurate use of technical language and the choice of appropriate tools and equipment can be seen in those who are working at the highest level.