Intent

Pupils at Moorlands will learn to acknowledge the worth of products they use on a day to day basis in conjunction with obtaining a firm understanding of the design process and rationale for them being made. Through the evaluation of past and current design and technology products, children will develop a critical understanding of its impact on their lives and the wider world.

By participating in design as an interactive and reflective process, children will develop the following skill sets:

- consider the skills necessary to design the product they are working towards creating.
- understand what working safely and hygienically means.
- designing and making products that are fit for purpose within the context of real and relative situations.
- consider how to improve products and designs through self and peer evaluation, trialling and reviewing.

Implementation

To aid the facilitation of long-term retention, the knowledge and skills applied are built upon previous learning, where challenge and further support are implemented in every lesson so all pupils are able to thrive in Design and Technology at Moorlands.

Our Design and Technology curriculum is mapped across the school and progressively built on from EYFS through to the end of KS2 using the KAPOW scheme of work.

It is vital children develop the progressive skills attained by a Design Technologist throughout their time at Moorlands. This is achieved through offering a well sequenced structure to provide a coherent scheme of learning that continually develops children's designing, planning, making and evaluating skills that align with requirements set out in the National Curriculum. Each project is centred on a design and technology subject focus involving:
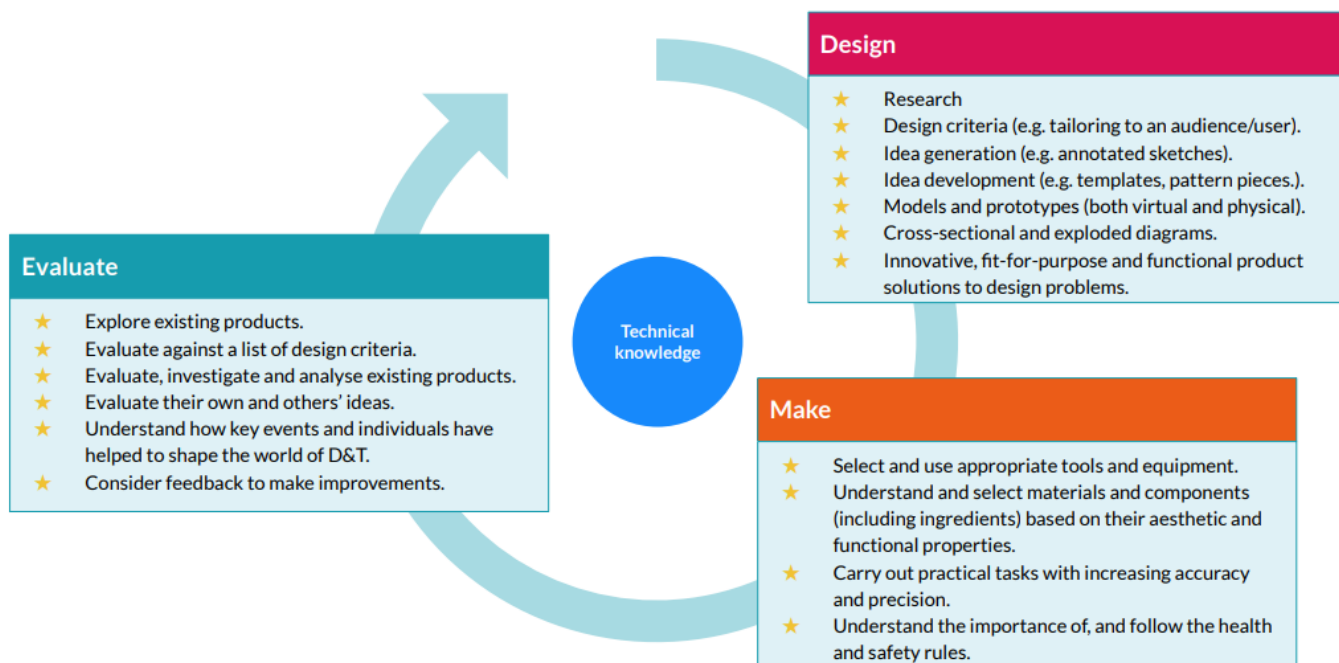
- Structures
- digital world
- mechanisms
- cooking and nutrition
- textiles.

Making purposeful connections with other areas of the curriculum will seek to support and manifest a deeper understanding of the design process, while consolidating learning from other subjects and previous years.

For example,

- Pupils in Year 5 will use their computing skills within their Digital World Unit.
- Applying knowledge of electrical components from Science will also facilitate Year 4 pupils to create torches in Design and Technology.
- During Design and Technology in Year 1, children will consolidate their learning on world kitchens through making recipes for seasonal fruit and vegetables.

Each unit follows the same three strands of the design process: designing, making and evaluating. This aids children to understand which phase of the unit they are working within. In turn, a deeper understanding of what each strand entails can become enhanced.

Design

- Research
- Design criteria (e.g. tailoring to an audience/user).
- Idea generation (e.g. annotated sketches).
- Idea development (e.g. templates, pattern pieces.).
- Models and prototypes (both virtual and physical).
- Cross-sectional and exploded diagrams.
- Innovative, fit-for-purpose and functional product solutions to design problems.

Evaluate

- Explore existing products.
- Evaluate against a list of design criteria.
- Evaluate, investigate and analyse existing products.
- Evaluate their own and others' ideas.
- Understand how key events and individuals have helped to shape the world of D&T.
- Consider feedback to make improvements.

Technical knowledge

Make

- Select and use appropriate tools and equipment.
- Understand and select materials and components (including ingredients) based on their aesthetic and functional properties.
- Carry out practical tasks with increasing accuracy and precision.
- Understand the importance of, and follow the health and safety rules.

Impact

When pupils leave Moorlands Primary School in Year 6, they will be equipped with a range of skills that enable them to succeed in their secondary education and be innovative and resourceful members of society.

The impact of our Design and technology curriculum is measured in a variety of ways.

- Questioning during lesson time.
- Analysing written work and projects and proposing next steps.
- Listening to group discussions, ideas and problem-solving methods.
- Pupil interviews across all year groups.
- Book looks.