

Design and Technology at Thrupp

Intent

At Thrupp Primary School, we do our best to be our best and provide a rich Design and Technology curriculum that inspires pupils to be innovative and creative thinkers. We want our pupils to gain an appreciation for the product design cycle through ideation, creation, and evaluation as well as develop the confidence and **curiosity** to take risks, through drafting design concepts, modelling, and testing. Our pupils can then be **reflective** learners who gain **resilience** through evaluating their work, while also learning to **relate** to each other by evaluating their peers in a supportive, collaborative classroom environment. Our Design and Technology curriculum aims to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will **aspire** to contribute to future design advancements.

Implementation

The Design and Technology National curriculum outlines the three main stages of the design process: design, make and evaluate. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical, and technical understanding required for each strand. Cooking and nutrition has a separate section, with a focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality.

The National curriculum organises the Design and technology attainment targets under four subheadings: Design, Make, Evaluate, and Technical Knowledge. By following the Kapow Primary scheme, these subheadings make up the strands we follow at Thrupp School:

- Design
- Make
- Evaluate
- Technical knowledge

Cooking and nutrition is given a particular focus in the National curriculum so Kapow Primary have made this one of the six key areas that pupils revisit throughout their time at Thrupp Primary:

- Cooking and nutrition
- Mechanisms/Mechanical systems
- Structures
- Textiles
- Electrical systems (KS2 only)
- Digital world (KS2 only)

Kapow Primary's Design and Technology scheme has a clear progression of skills and knowledge within these strands and key areas across each year group. The Progression of skills shows the skills and knowledge that are taught within each class and how these skills develop to ensure that attainment targets are securely met by the end of each key stage.

Through Kapow Primary's Design and technology scheme, pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in the six key areas. Each of the key areas follows the design process (design, make and evaluate) and has a particular theme and focus from the technical knowledge or cooking and nutrition section of the curriculum.

The Kapow Primary scheme is a spiral curriculum, with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning. Lessons incorporate a range of teaching strategies from independent tasks, paired and group work including practical hands-on, computer-based and inventive tasks. This variety means that lessons are engaging and appeal to those with a variety of learning styles. Differentiated guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils' learning are available when required. Knowledge organisers for each unit support pupils in building a foundation of factual knowledge by encouraging recall of key facts and vocabulary.

Strong subject knowledge is vital for Thrupp Primary teachers to be able to deliver a highly effective and robust Design and technology curriculum. Each unit of lessons includes multiple teacher videos to develop subject knowledge and support ongoing CPD so that we feel supported to deliver lessons of a high standard that ensure pupil progression.

At Thrupp Primary, Design and Technology is taught in half termly blocks, opposite an Art and Design unit. We follow the 'Five a Day' approach to our lessons, ensuring our pupils make progress.

Our Early Years curriculum allows opportunities for pupils to develop early skills through 'Expressive Arts and Design' where children learn through play with a variety of media and materials. The Kapow scheme provides units for Reception that have been included in our overview for Design and Technology here at Thrupp.

Impact

The impact of Kapow Primary's scheme can be constantly monitored through both formative and summative assessment opportunities. Each lesson includes guidance to support Thrupp School teachers in assessing pupils against the learning objectives. Furthermore, each unit has a unit quiz and knowledge catcher which can be used at the start and/ or end of the unit.

After the implementation of Kapow Primary Design and technology, pupils should leave school equipped with a range of skills to enable them to succeed in their secondary education and be innovative and resourceful members of society. The expected impact of following the Kapow Primary Design and technology scheme of work is that children will:

- Understand the functional and aesthetic properties of a range of materials and resources.
- Understand how to use and combine tools to carry out different processes for shaping, decorating, and manufacturing products.
- Build and apply a repertoire of skills, knowledge and understanding to produce high quality, innovative outcomes, including models, prototypes, and products to fulfil the needs of users, clients, and scenarios.
- Understand and apply the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment.
- Have an appreciation for key individuals, inventions, and events in history and of today that impact our world.

- Recognise where our decisions can impact the wider world in terms of community, social and environmental issues.
- Self-evaluate and reflect on learning at different stages and identify areas to improve.
- Meet the end of key stage expectations outlined in the National curriculum for Design and technology.