

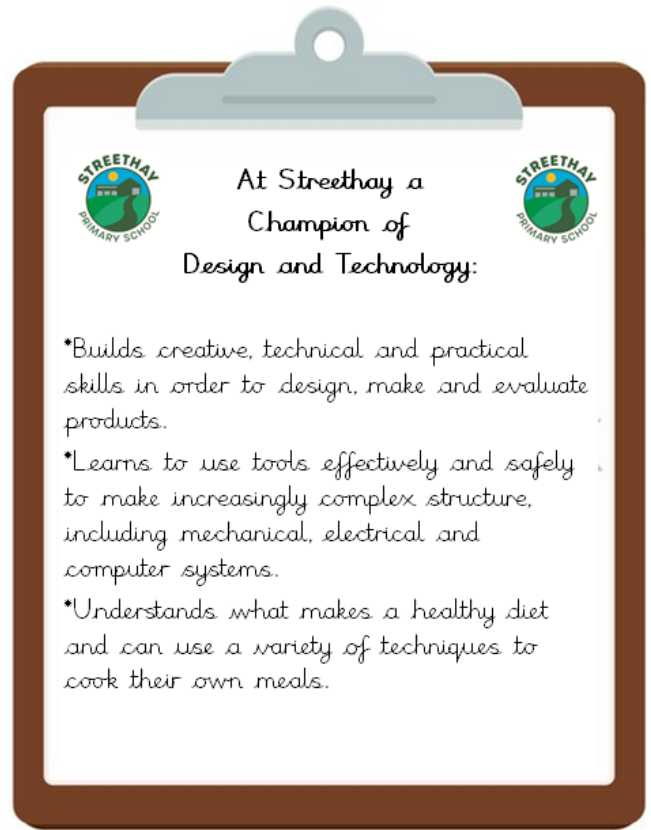


Design and Technology Curriculum Statement

Intent

At Streethay we recognise that we are educating children for an uncertain future. Many of the jobs that will be required of our children when they are adults are yet to be defined, and the knowledge and skills they will require is difficult to determine. However, we are certain that the future will require them to be creative, reflective problem solvers.

We aim to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation. We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing and to be reflective learners who evaluate their work and the work of others. Through our scheme of work, we aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements. Our Design and technology scheme of work enables pupils to meet the end of key stage attainment targets in the National curriculum and the aims also align with those in the National curriculum.



Implement

In EYFS, objectives have been taken from the Early Years Framework. With the most relevant areas being Physical development and Expressive Arts and Design. Then in regard to the ELG, Physical development is focused on Fine Motor Skills and Expressive Arts and Design is focused on Creating With Materials.

In KS1 and KS2, we use the KAPOW Primary scheme of work to support teaching and learning within Design and Technology.

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 five subheadings or strands:

- Design
- Make
- Evaluate
- Technical knowledge
- Cooking and nutrition

At Streethay, our Design and Technology scheme has a clear progression of skills and knowledge within these five strands across each year group. Each unit of work is mapped out against the National Curriculum to ensure coverage of each of the National Curriculum attainment targets as well as each of the strands. Our Progression of skills shows the skills and knowledge that are taught within each year group and how these skills develop to ensure that attainment targets are securely met by the end of each key stage. Pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in six key areas:

- Mechanisms
- Structures
- Textiles
- Food



- Electrical systems (KS2)
- Digital world (KS2)

Each of our 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.

Our design and technology curriculum 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. Teachers use extra scaffold where appropriate and are mindful of how to stretch pupils learning, so that learning can be accessed and enjoyed by all pupils.

When learning in design and technology, children have access to 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 staff to be able to deliver a highly effective and robust Design and technology curriculum. To support teachers, who may lack confidence in their own design and technology ability, we use pupil videos created by subject specialists help pupils to see art techniques modelled by experts, to ensure the delivery of the curriculum is of the highest quality. Teachers are also able to access multiple teacher videos to develop subject knowledge and support ongoing CPD.

Design and Technology at Streethay is taught every other half term, in a rotation with Art and Design. It is timetabled for 1 hour weekly, with blocked afternoons in the final week of a half term, where more time is given, to allow for more complex final pieces.

Impact

The impact of our curriculum is constantly monitored through both formative and summative assessment opportunities.

Our 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 our curriculum 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, CAD, 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.

At Streethay, we will know we have created Champions of Design and technology if children can:

*Use creative, technical and practical skills in order to design, make and evaluate products.

*Use tools effectively and safely to make increasingly complex structures, including mechanical, electrical and computer systems.

*Understand what makes a healthy diet and can use a variety of techniques to cook their own meals.