THAMES VIEW JUNIOR SCHOOL DESIGN AND TECHNOLOGY POLICY AND GUIDANCE

Updated September 2025

Intent

At Thames View Junior School, we intend to build a Design and Technology curriculum which develops learning and results in the acquisition of knowledge and skills. Children will know more, remember more and understand more.

We intend to design a Design and Technology curriculum with appropriate subject knowledge, skills and understanding as set out in the National Curriculum Design and Technology Programmes of study, to fulfil the duties of the NC whereby schools must provide a balanced and broadly-based curriculum which promotes the spiritual, moral, cultural, mental and physical development of pupils and prepares them for the opportunities and responsibilities and experiences for later life.

At Thames View Junior School, 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. 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.

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 and seasonality.

The National Curriculum organises the Design and Technology attainment targets under five subheadings:

- Design
- Make
- Evaluate
- Technical Knowledge
- Cooking and Nutrition

Our children respond to design briefs and scenarios that requite consideration of the needs of others, developing their skills in six key areas:

- Mechanisms
- Structures
- Textiles
- Cooking and nutrition

- Electrical systems
- Digital world

Each of these key areas follow 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. We teach a spiral curriculum, with key areas revisited again and again with increased 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. Knowledge organisers for each unit support children in building a foundation of factual knowledge by encouraging recall of facts and vocabulary.

Impact

Our children enjoy and value Design and Technology and know why they are doing things, not just how. Children will understand and appreciate the value of Design and Technology in the context of their personal wellbeing and the creative and cultural industries and their many career opportunities. Progress in Design and Technology is demonstrated through regularly reviewing and scrutinising children's work, to ensure that progression of skills is taking place and a quiz and knowledge catcher at the start/end of each unit.

The expected impact of Design and Technology 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.

Vision and Aims

Our vision for Design and Technology education at Thames View Junior School is to:

- Foster creativity and innovation through hands-on design and making processes.
- Develop students' problem-solving skills by engaging them in real-world challenges.
- Encourage collaboration and teamwork in designing and creating products.
- Equip students with the knowledge and skills necessary to understand and apply the principles of design, technology, and engineering.

- Promote an understanding of the role of D&T in everyday life and its impact on society and the environment.

Curriculum Framework

1. Alignment with National Curriculum

Our D&T curriculum is aligned with the National Curriculum for Design and Technology, ensuring comprehensive coverage of key areas:

- Design: Generating ideas, developing specifications, and designing products.
- Make: Selecting and using tools and materials to create functional products.
- Evaluate: Testing and evaluating designs against criteria and understanding the impact of D&T on society and the environment.
- Technical Knowledge: Understanding materials, components, and techniques used in design and technology.

2. Progression and Continuity

- The curriculum is designed to ensure progression and continuity in learning, with clear learning objectives and outcomes for each year group.
- Yearly projects build upon prior knowledge and skills, allowing students to deepen their understanding of D&T concepts.

3. Cross-Curricular Links

- Design and Technology will be integrated with other subjects, such as science, mathematics, art, and computing, to enhance learning and demonstrate the practical applications of D&T.
- Opportunities for interdisciplinary projects will be identified to reinforce D&T concepts and encourage collaborative skills.

Teaching and Learning

1. Active Learning

- We prioritise active, hands-on learning experiences where students engage in designing, making, and evaluating their own projects.
- Students will be encouraged to experiment, take risks, and learn from failure as part of the design process.

2. Differentiation

- Teaching methods and resources will be differentiated to meet the diverse learning needs of all students, including those with special educational needs and disabilities (SEND).
- Teachers will provide additional support and resources to ensure all students can access the curriculum effectively.

3. Use of Resources and Tools

- Students will have access to a variety of tools, materials, and resources to support their learning in D&T.
- Health and safety guidelines will be taught and adhered to when using tools and equipment.

Assessment and Monitoring

1. Assessment

- Regular formative assessments will be conducted to monitor student progress and understanding, providing feedback to inform future teaching.
- Summative assessments will take place at the end of each unit to evaluate students' knowledge and skills in D&T.

2. Monitoring

- The D&T coordinator will monitor the implementation of the D&T curriculum and assess the quality of teaching and learning through lesson observations, student work scrutiny, and feedback from staff and students.
- Annual reports will be generated to evaluate the impact of the D&T curriculum on student outcomes and engagement.

Resources

1. Physical Resources

- A variety of high-quality resources, including tools, materials, and equipment, will be provided to support teaching and learning in D&T.
- Classrooms and workshops will be equipped with the necessary tools for effective D&T education.

2. Professional Development

- Ongoing professional development opportunities will be provided for staff to enhance their understanding of D&T education and effective teaching strategies.
- Staff will be encouraged to attend workshops, training sessions, and network with other schools to share best practices.

Health and Safety

- All D&T activities will be conducted following strict health and safety guidelines. Risk assessments will be completed prior to projects, and appropriate safety measures will be implemented.
- Students will be taught the importance of safety when using tools and equipment and will be required to follow established safety protocols.

Parental and Community Engagement

- Parents will be informed about the D&T curriculum and encouraged to support their children's learning at home through various activities and resources.
- Opportunities for community involvement, such as design challenges, workshops, and exhibitions, will be explored to enrich the D&T curriculum.

Review and Evaluation

- This D&T policy will be reviewed annually to ensure its effectiveness and relevance. Feedback from staff, students, and parents will be considered to make necessary updates.
- The impact of the D&T curriculum on student engagement and learning outcomes will be evaluated regularly to inform future planning.

Conclusion

At Thames View Junior School, we are dedicated to providing a high-quality Design and Technology education that inspires creativity, innovation, and practical problem-solving skills. Through a well-structured curriculum and engaging learning experiences, we aim to equip our students with the knowledge and skills they need to thrive in an increasingly technological world.

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