



Burghill Community Academy Design and Technology Policy



Reviewed: Autumn 2024 Ms C Astley

Intent

At Burghill Community Academy, our Design and Technology curriculum, delivered through the Kapow Primary scheme, is designed to inspire pupils to be innovative and creative thinkers. We aim to instill a deep understanding of the product design cycle — from ideation, through creation, to evaluation. Our curriculum is closely aligned with the school's ethos, vision, and values, specifically the 6 Rs: Reflectiveness, Relationships, Resilience, Resourcefulness, Respect, and Risk-Taking. These principles are integrated into every aspect of our Design and Technology teaching to help pupils grow holistically as individuals and future-ready citizens.

Our objectives include:

Reflectiveness: Encouraging pupils to evaluate their work and the work of others, promoting a reflective learning process that fosters continuous improvement.

Relationships: Building collaboration skills by engaging pupils in group projects and discussions, enhancing their ability to communicate and work effectively with peers. Resilience: Developing confidence to take risks in drafting design concepts, modeling, and testing, and cultivating perseverance in the face of challenges.

Resourcefulness: Promoting creative problem-solving by encouraging pupils to use available resources to address design challenges and innovate solutions.

Respect: Teaching pupils to respect different perspectives and appreciate the diverse contributions in group activities, fostering a culture of mutual respect.

Risk-Taking: Instilling confidence in pupils to make informed decisions, take calculated risks, and understand the rewards and learning opportunities that come from trying new things.

Our curriculum aligns with the National Curriculum, covering the four key strands of Design and Technology: Design, Make, Evaluate, and Technical Knowledge, while also providing specific focus on Cooking and Nutrition. By the end of their primary education, pupils will have a solid foundation of skills, knowledge, and attitudes that prepare them for further education and participation in a rapidly changing world.

Implementation

Design and Technology is taught using the Kapow Primary scheme, which provides a clear progression of skills and knowledge across all year groups. The curriculum follows a spiral model, where pupils revisit and build upon key concepts with increasing complexity. This approach ensures continuity and depth of learning, allowing pupils to develop their abilities over time.

Key aspects of our implementation strategy include:

Structured Curriculum Delivery: Pupils engage in hands-on projects that encompass the design process: designing, making, and evaluating products. These projects draw on real-world contexts and scenarios, integrating the technical knowledge and skills required by the National Curriculum.

Diverse Learning Activities: Lessons incorporate a variety of teaching strategies, including independent tasks, group work, practical activities, and digital tasks. This variety supports different learning styles and ensures an inclusive approach, fostering a culture of Reflectiveness, Resilience, and Risk-Taking.

Progressive Learning Opportunities: The scheme's six key areas — Cooking and Nutrition, Textiles, Mechanisms/Mechanical Systems, Electrical Systems (KS2 only), Structures, and Digital World (KS2 only) — are revisited throughout the pupils' time in primary school, allowing for consolidation and development of skills.

Embedding the 6 Rs: The 6 Rs are interwoven throughout the curriculum. For example, Reflectiveness is encouraged through evaluation stages of projects, Relationships are developed through collaborative work, Resilience is built through iterative design and testing processes, Resourcefulness is fostered by using available materials creatively, Respect is cultivated through peer review sessions, and Risk-Taking is supported through the encouragement of innovative and experimental design.

Professional Development for Staff: To ensure high-quality delivery, Kapow provides resources, teacher videos, and ongoing CPD to build staff confidence and expertise in teaching Design and Technology. This support helps all teachers feel equipped to deliver lessons that promote the 6 Rs.

Assessment Practices: Formative assessments are used throughout lessons to monitor progress, provide feedback, and guide pupils in reflecting on their learning journey. Summative assessments, including quizzes and knowledge catchers, help evaluate understanding at the end of units and identify areas needing additional focus.

Impact

The impact of our Design and Technology curriculum is measured by the extent to which pupils meet the intended learning outcomes and embody the 6 Rs in their learning. The expected outcomes for pupils at Burghill Community Academy include:

Mastery of Skills and Knowledge: Pupils will understand the functional and aesthetic properties of a range of materials and how to use tools to carry out different processes for shaping, decorating, and manufacturing products. They will build and apply a repertoire of skills to produce high-quality, innovative outcomes.

Healthy Eating and Nutrition: Pupils will understand the principles of healthy eating, diets, and recipes, as well as key cooking processes and food groups.

Cultural and Historical Appreciation: Pupils will have an appreciation for key individuals, inventions, and events in history and contemporary society that impact our world.

Social and Environmental Awareness: Pupils will recognize the impact of their decisions on the wider world, including community, social, and environmental issues.

Self-Evaluation and Improvement: Pupils will demonstrate Reflectiveness by evaluating and reflecting on their learning at different stages and identifying areas for improvement. Preparation for Future Education: Pupils will be prepared to meet the end-of-key stage expectations outlined in the National Curriculum for Design and Technology and Computing, equipped with a range of skills that will enable them to succeed in their secondary education.

In the Early Years Foundation Stage (EYFS) at Burghill Community Academy, Design and Technology is embedded within the broader goal of fostering creativity, exploration, and problem-solving skills in young learners. The curriculum is linked to the Expressive Arts and Design area of the Early Learning Goals (ELGs), where children are encouraged to use materials and media creatively while developing an understanding of how things are made and function. Through structured activities, we aim to develop the foundational skills that will support children's progression in Design and Technology in later key stages, with an emphasis on exploration and innovation.

By integrating Design and Technology into EYFS, we support the development of the 6 Rs:

- Reflectiveness: Encouraging children to reflect on the outcomes of their creations and consider improvements.
- Relationships: Promoting teamwork and collaboration in group projects.
- Resilience: Encouraging persistence when faced with challenges in constructing models or using tools.
- Resourcefulness: Teaching children how to creatively use different materials and tools to solve problems.
- Respect: Helping children respect the materials, tools, and ideas of others.
- Risk-Taking: Encouraging children to try new ideas, materials, and designs in their creations.

Monitoring and Assessment

To ensure the curriculum is having a positive impact on pupils' learning: Formative and Summative Assessments: Ongoing formative assessments, including observations, discussions, and feedback, are complemented by summative assessments such as unit quizzes and knowledge catchers. These assessments help identify gaps in learning and inform targeted interventions.

Continuous Feedback and Adaptation: Teachers provide continuous feedback to pupils, fostering an environment of Reflectiveness and encouraging self-assessment. The curriculum is regularly reviewed to ensure it meets the needs of all pupils and aligns with the latest educational research and EEF findings on effective teaching and learning practices.

By following the Kapow Primary Design and Technology scheme, we ensure that pupils at Burghill Community Academy are not only equipped with the technical skills and knowledge required by the curriculum but also embody the values of the 6 Rs, preparing them to be innovative, reflective, and resourceful members of society.