





Roose Community Primary School

Curriculum Intent, Implementation & Impact in Design and Technology

Intent: Purposeful Learning Rooted in Community

At Roose Community Primary School, our curriculum is underpinned by our motto: **“As a Caring Community, we Learn and Grow”** (rooseprimary.co.uk). This philosophy guides our approach to Design and Technology (DT), aiming to develop learners who are **curious, creative, and confident**.

Our DT curriculum seeks to:





-  **Inspire Creativity and Problem-Solving:** Pupils are encouraged to explore, design, and make products that are functional, practical, and innovative. By experimenting with materials, tools, and techniques, they learn to think critically and develop solutions to real-world problems.
-  **Connect Learning to Real-World Contexts:** We believe learning is most meaningful when pupils see its impact beyond the classroom. By integrating local industry insights, particularly from BAE Systems, Siemens, and Ørsted, pupils can understand how design and technology shape the world around them.
-  **Promote Sustainability and Ethical Practices:** Pupils learn to make informed choices about materials, energy use, and environmental impact, reflecting the importance of sustainability in modern design. They explore how design can improve lives while caring for the planet.
-  **Foster Collaboration and Communication:** Pupils are encouraged to work in teams, share ideas, give and receive feedback, and communicate their design intentions clearly, developing skills essential for life beyond school.


Through this approach, pupils become confident designers and responsible citizens, aware of their role in shaping a sustainable and innovative future.

Implementation: Engaging, Progressive, and Community-Focused

Our DT curriculum is delivered using the **CUSP Design and Technology framework**, ensuring a **cohesive, sequential, and skills-based progression** across all year groups.

Key aspects of implementation include:






-  **Structured Learning Journey:** Pupils follow a carefully sequenced program, building on prior knowledge while developing new skills in designing, making, evaluating, and understanding technology.
-  **Cross-Curricular Connections:** DT projects are linked with Science (materials and forces), Maths (measurements, geometry, and statistics), Art (aesthetic design and creativity), and Computing (programming and digital design), creating meaningful, interconnected learning experiences.
-  **Local Industry Partnerships:** Collaboration with BAE Systems, Siemens, and Ørsted provides pupils with authentic experiences. For example:
 - **BAE Systems** offers workshops on engineering principles and manufacturing processes, showing pupils how submarines and complex machinery are designed.
 - **Siemens** provides practical sessions in renewable technologies, energy systems, and problem-solving challenges.
 - **Ørsted** supports learning about sustainable energy, environmental stewardship, and community-based projects.
-  **Community-Based Learning Projects:** Pupils apply their skills to solve challenges relevant to Barrow-in-Furness. Projects could include designing energy-efficient solutions for local buildings, creating prototypes for community gardens, or developing products that support local initiatives.

-  **Safety and Responsibility:** Pupils are explicitly taught how to handle tools, equipment, and materials safely. They are encouraged to respect the learning environment and consider the wider impact of their designs.

By combining structured skill development with real-world applications, pupils gain **confidence, resilience, and a deep understanding of how design and technology shapes everyday life.**

Impact: Empowered Learners Making a Difference




The impact of our DT curriculum is measured by the skills, knowledge, and attitudes pupils develop over time:

-  **Skill Development:** Pupils progress in technical skills, including cutting, joining, constructing, programming, and evaluating. They develop problem-solving strategies and become increasingly independent in their creative decision-making.
-  **Engagement and Enthusiasm:** Industry partnerships, hands-on projects, and real-life challenges foster motivation and excitement about DT, encouraging pupils to explore further learning opportunities.
-  **Community Contribution:** Pupils are inspired to apply their learning to benefit local community projects. For instance, they may design environmentally-friendly solutions, create products that meet community needs, or develop displays to educate others about sustainability.
-  **Broadened Horizons and Career Awareness:** Exposure to professionals from BAE Systems, Siemens, and Ørsted helps pupils understand the opportunities available in STEM careers. Pupils gain insights into future pathways in engineering, design, technology, and environmental industries.
-  **Assessment of Impact:** Teachers assess learning through project outcomes, pupil reflections, peer reviews, and demonstrations of practical skills. The emphasis is on growth, creativity, and problem-solving rather than simply completing tasks.

Overall, pupils leave Roose Community Primary School as **confident, innovative, and socially-conscious learners**, equipped with the skills to thrive in the 21st century.

Extending Learning into the Local Community

We believe learning should extend beyond the classroom walls. Our **partnerships with local industry** play a key role in connecting pupils to the world of work and the local community:

-  **BAE Systems:** Pupils explore the design and engineering processes behind submarines and high-tech manufacturing, understanding real-world applications of STEM concepts.
-  **Siemens:** Pupils engage in practical workshops focusing on sustainable technologies, programming, and problem-solving in a professional context.
-  **Ørsted:** Pupils learn about renewable energy projects, sustainability challenges, and how to make a positive environmental impact locally and globally.

These experiences not only **enrich the curriculum** but also inspire pupils, showing them how their learning can contribute to the community and wider society. Pupils gain a **sense of purpose and pride** in their achievements, knowing their work has real-world significance.

Conclusion

The DT curriculum at Roose Community Primary School is **intentional, engaging, and impactful**. It reflects the school's values of care, collaboration, and community, ensuring pupils:

- Develop practical and creative skills.

- Connect their learning to the local community and industries.
- Understand the importance of sustainability and ethical design.
- Gain confidence, resilience, and a sense of responsibility.

By combining **high-quality teaching, real-world experiences, and community engagement**, pupils leave our school prepared to succeed academically, socially, and personally.