

Bonneygrove and Millbrook Primary Federation

Design and Technology Subject Guidance

INTENT

At Bonneygrove and Millbrook Primary Federation, we believe that Design and Technology should be practical, purposeful and accessible for all children. Our Design and Technology curriculum is designed to enable pupils to become creative problem-solvers who can design, make and evaluate products that meet real needs.

Our intent is firmly rooted in the **National Curriculum for Design and Technology (2014)** and shaped by the shared values and ethos of both schools. Through Design and Technology, pupils develop knowledge and understanding of materials, structures, mechanisms and systems, alongside essential life skills such as teamwork, resilience and perseverance.

Design and Technology enables pupils to apply knowledge from across the curriculum, including Mathematics, Science and Computing, to practical tasks. It helps children understand how design and technology impact everyday life and prepares them for a rapidly changing technological world.

In line with the **Ofsted Inspection Framework (November 2025)**, our Design and Technology curriculum is ambitious, inclusive and carefully sequenced from EYFS to Year Six so that pupils **know more, remember more and apply technical knowledge and skills with increasing confidence over time**.

WHY WE TEACH DESIGN AND TECHNOLOGY THE WAY WE DO

We teach Design and Technology through practical problem-solving because children learn best by designing, making, testing and improving their ideas.

Our approach encourages pupils to:

- Identify real problems and needs
- Generate and communicate design ideas
- Select appropriate tools, materials and techniques
- Evaluate and improve their work

We provide hands-on experiences using a wide range of materials and tools to ensure pupils develop confidence and independence. This is particularly important for pupils who may experience **digital poverty** or have limited opportunities to explore design and making beyond school.

EYFS

Children explore construction, materials and simple tools through play. They develop early problem-solving skills by making, adapting and evaluating their creations.

Key Stage One

Pupils design and make simple products for a purpose. They learn to use tools safely, select materials and evaluate their work.

Key Stage Two

Pupils design, make and evaluate more complex products. They use mechanisms, structures and systems, including where appropriate electrical components and digital control, and refine their work through testing and evaluation.

Through Design and Technology, pupils develop creativity, resilience and practical skills, preparing them for future learning and employment.

ROLE OF THE DESIGN AND TECHNOLOGY SUBJECT LEADER

The Design and Technology Subject Leader at Bonneygrove and Millbrook Primary Federation plays a key role in ensuring that the Design and Technology curriculum is ambitious, coherently sequenced and effectively implemented, in line with the **National Curriculum for Design and Technology (2014)** and the **Ofsted Inspection Framework (November 2025)**.

The Subject Leader:

- Provides clear strategic direction for Design and Technology across the Federation
- Ensures progression in technical knowledge, skills and vocabulary from EYFS to Year Six
- Monitors the quality of teaching and learning through lesson visits, book looks and pupil voice
- Supports teachers' subject knowledge and pedagogy in line with the **Teachers' Standards**
- Ensures SEND and EAL provision is embedded within Design and Technology lessons
- Manages and develops resources, tools and materials
- Ensures enrichment opportunities support real-world application and cultural capital
- Contributes to whole-school self-evaluation and inspection readiness

Through effective leadership, the Design and Technology Subject Leader ensures pupils leave the Federation as confident, capable designers and makers.

SEND INCLUSION

SEND inclusion is integral to the design and delivery of the Design and Technology curriculum.

Guided by the **nasen Teacher SEND Handbook (January 2024)**, we follow the graduated approach of:

Assess → Plan → Do → Review

All pupils receive **Quality First Teaching**, with reasonable adjustments made so that pupils with SEND are not disadvantaged and can access the same ambitious practical curriculum as their peers.

SUPPORTING PUPILS WITH SEND IN DESIGN AND TECHNOLOGY

Pupils with SEND are supported through:

- Adapted tools and materials
- Visual instructions and step-by-step modelling
- Scaffolded design processes and templates
- Flexible outcomes and alternative ways to demonstrate learning
- Adult support and guided practice

These approaches reduce barriers and support confidence, independence and success in practical learning.

EAL SUPPORT

Pupils with English as an Additional Language are supported through:

- Visual modelling and demonstrations
- Explicit teaching of technical vocabulary
- Structured talk opportunities and partner work
- Opportunities to explain ideas through making rather than written language

Design and Technology provides meaningful contexts for language development through purposeful talk and collaboration.

IMPLEMENTATION

The Design and Technology curriculum is carefully planned, coherently sequenced and skills rich. Learning is organised so that pupils revisit and build upon key processes over time, allowing knowledge and confidence to develop cumulatively.

Across the Federation, pupils revisit:

- Designing for a purpose
- Selecting and using tools and materials safely
- Making and assembling products
- Testing, evaluating and refining ideas

Teaching is underpinned by:

- Clear design briefs and success criteria
- Explicit modelling of techniques

- Opportunities for practice, testing and improvement
- Links to real-world contexts and cross-curricular learning

Enrichment opportunities, including practical challenges and real-life design problems, are used to deepen understanding and build cultural capital.

EXAMPLES OF WHAT WE TEACH IN DESIGN AND TECHNOLOGY

EYFS

- Exploring construction and materials
- Making models and simple structures
- Talking about what works and why

Key Stage One

- Designing and making simple products
- Using tools safely
- Exploring structures and mechanisms

Key Stage Two

- Designing for specific users and purposes
- Using mechanisms, structures and systems
- Evaluating and refining products based on testing

IMPACT

The impact of the Design and Technology curriculum is seen in pupils who enjoy practical learning, take pride in their work and persevere when solving problems.

By the end of Key Stage Two, pupils can:

- Design products that meet a given need
- Use tools and materials safely and effectively
- Evaluate and improve their work
- Explain design choices using appropriate vocabulary

Pupils leave the Federation with a secure foundation for secondary Design and Technology and the confidence to approach practical challenges.

OUTCOMES – NATIONAL CURRICULUM 2014

By the end of the Federation, pupils meet the expectations of the **National Curriculum for Design and Technology (2014)**, developing secure design, making and evaluating skills.

DESIRED OUTCOMES – BONNEYGROVE AND MILLBROOK PRIMARY FEDERATION

By the time pupils leave Bonneygrove and Millbrook Primary Federation, we want them to be creative, resilient problem-solvers who:

- Think critically and innovatively
- Apply knowledge from across the curriculum
- Work collaboratively and independently
- Take pride in making and improving products
- Are curious, resilient, honest, ambitious, creative, kind and inclusive learners

PUPIL VOICE

EYFS

“I am making a castle because I want to put toys under the castle for my mummy. I will shake it, and toys will come out.”

Key Stage One

“Everyone in my class made a dip, we put cucumber in it. We used mayo, cheese, in a bowl and mixed it. I like making food because you then get to eat it.” Belle, KS1.

Key Stage Two

“We first started with a box and decorated it inside and outside. We had to design it first, we then made a cam and made our designs move, up and down by turning a handle. We had to use hot glue. It was really good fun because we got to draw, stick, and make. There were problems we had to solve to make it work. The most difficult part was getting the drawing to stick on the stick.” Patricia UKS2.

SEND

“I made a round pizza, it was tasty. I liked making it because I like making pizza’s”

“We have made pillows; I enjoyed it because I like sewing.” Stanley

EAL

“We made mezze, which is lots of different dishes from the Mediterranean. I like learning about different foods it makes fun.”

Design and Technology is planned through topic-based projects that require pupils to apply knowledge from science, mathematics, computing, history, geography and PSHE. Pupils design, make and evaluate products linked directly to their wider learning, giving work a clear purpose. Immersion days and extended build projects provide opportunities for problem-solving, collaboration and resilience. Learning is memorable because pupils can see, touch and test their ideas, and enjoyment is high because outcomes are practical and meaningful.

Why Intent is Strong

The intent of our Design and Technology curriculum is strong because:

- It is rooted in the National Curriculum and sequenced to build knowledge and skills over time
- Learning is practical, purposeful, and linked to real-world problems
- Pupils develop creativity, resilience, and technical understanding
- The curriculum is inclusive and accessible for all learners
- It prepares pupils for future technological and societal change

Why Implementation is Strong

Implementation of Design and Technology is strong because:

- Teaching is carefully planned and skills-rich
- Learning is sequenced to revisit and deepen understanding
- Explicit modelling supports skill acquisition
- Pupils design, make and evaluate products
- Practical experiences build confidence and independence
- SEND and EAL strategies ensure accessibility
- Cross-curricular links enrich understanding and application

Why Impact is Strong

The impact of our curriculum is strong because:

- Pupils enjoy practical learning and take pride in their work
- They can design products that meet real needs
- They use tools and materials safely and effectively
- They evaluate and improve their designs
- Technical vocabulary and communication skills develop over time
- Progress is evident in knowledge, skills, and application
- Pupils are prepared for secondary learning and beyond