Bryn St Peters Primary School

Design & Technology Policy

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1. Introduction

At Bryn St Peters Primary School, Design & Technology (DT) is valued as an inspiring, rigorous, and practical subject. It provides pupils with opportunities to become innovative, resourceful, and reflective learners who can solve real and relevant problems. Through DT, our pupils learn to combine practical skills with creativity, applying their knowledge to design, make, and evaluate products that meet genuine needs.

Our policy is structured around **Intent, Implementation, and Impact**, and ensures that DT is inclusive, progressive, and meaningful for all learners, including those with Special Educational Needs and Disabilities (SEND).

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2. Intent

2.1 Vision and Rationale

Our DT curriculum aims to prepare children for the ever-changing world by fostering creativity, resilience, problem-solving skills, and practical competence. We want children to recognise that design and technology affect daily life and have a lasting impact on society and the environment.

2.2 Aims

We intend for all pupils to:

1. Develop creativity, imagination, and technical expertise.
2. Learn to design and make purposeful, functional, and appealing products for real users.
3. Build knowledge and understanding of the five DT strands:
    - **Structures**
    - **Mechanisms**
    - **Textiles**
    - **Food and Nutrition**
    - **Electrical Systems (KS2)**
4. Acquire skills in designing, making, evaluating, and applying technical knowledge, revisiting and embedding these as they progress.
5. Understand and apply principles of nutrition, cooking, and food hygiene.
6. Work collaboratively and independently, showing resilience and adaptability.
7. Recognise the role of designers, engineers, inventors, and chefs in shaping the world.
8. Consider sustainability, ethical design, and the impact of products on the environment.

2.3 Ambition for All Learners

- We intend that **all children**, including those with SEND, disadvantaged pupils, and the most able, access high-quality DT learning.
- Adaptive teaching ensures every child achieves their potential, whether by using modified tools, scaffolded tasks, or extension challenges.
- Pupils will leave Bryn St Peters equipped with transferable life skills and a positive attitude to practical problem-solving.

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3. Implementation

3.1 Curriculum Design

Our DT curriculum is built around the National Curriculum 2014 and the EYFS Framework. It is sequenced to provide:

- **Breadth**: All strands are taught across phases.
- **Progression**: Knowledge and skills build year on year.
- **Relevance**: Projects link to real-life contexts and meaningful problems.
- **Cross-curricular links**: DT connects with maths, science, art, PSHE, and computing.

3.2 Progression Across Phases

Early Years Foundation Stage (EYFS)

DT is embedded within *Expressive Arts and Design* and *Physical Development*. Children learn to:

- Handle tools and materials safely.
- Explore textures and construction methods.
- Create simple models for a purpose.
- Begin to plan, make, and evaluate.
- Experience food preparation and discuss healthy choices.

Key Stage 1 (Years 1–2)

Pupils:

- Design products based on simple criteria.
- Use drawings and mock-ups to communicate ideas.
- Select from basic tools and materials, explaining choices.
- Build structures and use simple mechanisms (levers, wheels, axles).
- Prepare simple dishes safely.
- Evaluate existing products and their own work.

Lower Key Stage 2 (Years 3–4)

Pupils:

- Research and develop design criteria.
- Apply knowledge of structures, mechanisms, and textiles.
- Use mechanical systems (gears, pulleys, cams).
- Prepare and cook savoury dishes using a range of techniques.
- Learn about seasonality and food origins.
- Use simple electrical systems (bulbs, buzzers, motors).
- Evaluate against clear criteria, considering function and user needs.

Upper Key Stage 2 (Years 5–6)

Pupils:

- Write detailed design specifications.
- Apply advanced skills in textiles, mechanisms, and food.
- Use computer-aided design (CAD) and digital tools.

- Design, make, and program products using electrical systems.
- Consider sustainability, ethics, and environmental impact.
- Work on extended, collaborative projects.
- Evaluate prototypes, refine designs, and justify modifications.

3.3 Teaching Approaches

- **Direct teaching** of technical skills (e.g., sawing, sewing, wiring circuits).
- **Investigation of existing products** to inspire new ideas.
- **Modelled examples** to demonstrate quality standards.
- **Iterative design process**: plan → make → evaluate → refine.
- **Collaborative learning** through paired or group projects.
- **Practical, hands-on experiences** to engage and motivate.

3.4 Adaptive Teaching and SEND Provision

We ensure inclusivity through:

- Differentiated tasks with varied levels of complexity.
- Visual prompts, word banks, and pre-teaching of key vocabulary.
- Modified or specialised tools (e.g., adapted scissors, stabilising boards).
- Adult support or peer collaboration to scaffold learning.
- Opportunities to present ideas orally or practically, not just in writing.
- Challenge tasks for more able pupils (e.g., CAD, independent prototypes).
- Regular consultation with the SENDCo to personalise strategies.

3.5 Assessment

Assessment is ongoing and purposeful:

- **Formative assessment**: questioning, observation, feedback during lessons.
- **Summative assessment**: end-of-unit reviews of designing, making, and evaluating.
- **Pupil voice**: children reflect on their learning and progress.
- **Evidence**: design sheets, photos, and final products.
- **Reporting**: progress in DT shared with parents in annual reports.

3.6 Resources

- Tools and materials for structures, textiles, and mechanisms.
- Age-appropriate cooking equipment.
- Electrical components for KS2.

- Secure storage for sharp tools and specialist resources.
- Access to CAD and digital design software.

3.7 Health and Safety

We follow CLEAPSS guidance and school policies:

- Clear teaching of safe tool and equipment use.
- Risk assessments for practical tasks.
- Food hygiene practices explicitly taught and enforced.
- Adult supervision during all high-risk activities.

3.8 Roles and Responsibilities

- **DT Subject Leader**: oversees curriculum, supports staff, monitors quality, manages resources.
- **Class Teachers**: plan and deliver high-quality lessons, adapt for diverse needs.
- **Teaching Assistants**: provide targeted support, especially for SEND pupils.
- **Senior Leadership Team**: ensure policy implementation and curriculum quality.

3.9 Community and Wider Opportunities

- Involving local designers, engineers, and chefs to inspire pupils.
- Participating in DT/STEM competitions.
- Exhibiting projects at school and community events.
- Making connections with local industry and the environment.

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4. Impact

4.1 Outcomes for Pupils

By the end of EYFS, pupils will:

- Safely use tools and materials.
- Plan and make simple models.
- Show curiosity about food and healthy choices.

By the end of Key Stage 1, pupils will:

- Design purposeful products for themselves and others.
- Use basic tools with increasing skill.
- Understand simple mechanisms and structures.
- Prepare and evaluate simple food products.

By the end of Lower Key Stage 2, pupils will:

- Design products informed by research and user needs.
- Apply mechanical systems and electrical components.
- Cook a variety of savoury dishes.
- Reflect on the environmental impact of products.

By the end of Upper Key Stage 2, pupils will:

- Design, make, and evaluate products of increasing complexity.
- Demonstrate independence in choosing and using tools and materials.
- Apply CAD and programming in product design.
- Understand seasonality, nutrition, and sustainability in food.
- Leave primary school as confident, creative problem-solvers.

4.2 Evidence of Impact

- **Pupil voice**: Children articulate their learning with enthusiasm.
- **Work scrutiny**: Design books and photographic evidence show progression.
- **Lesson observations**: Teachers demonstrate strong subject knowledge.
- **Assessment data**: Pupils meet or exceed age-related expectations.
- **SEND outcomes**: Pupils with additional needs make strong progress from their starting points.

4.3 Wider Impact

- Pupils develop resilience, independence, and teamwork skills.
- Pupils see the relevance of DT to everyday life and future careers.
- Parents and community value pupils' creative and practical achievements.
- The school fosters a culture of innovation, curiosity, and problem-solving.

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5. Monitoring and Review

The DT Subject Leader will monitor curriculum delivery through:

- Planning scrutiny, learning walks, and lesson observations.
- Discussions with pupils and staff.
- Reviewing assessment evidence.
- Evaluating resources and staff training needs.

This policy will be reviewed every two years by the Subject Leader and SLT to ensure it remains current and effective.

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6. Conclusion

At Bryn St Peters Primary School, Design & Technology is more than just making things — it is about inspiring children to think creatively, act resourcefully, and solve problems with resilience. Through a carefully sequenced and inclusive curriculum, we nurture every child's potential, preparing them with the technical knowledge and life skills needed for the future.