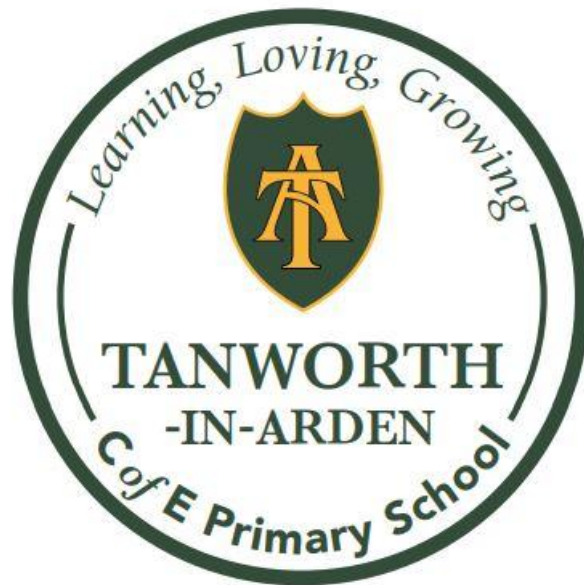


Tanworth-in-Arden Church of England Primary School and Nursery



*In God's family, learning, loving,
growing to be our very best.*

POLICY: Design & Technology Policy
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1. Our Christian Vision

At Tanworth-in-Arden Church of England Primary School and Nursery, our Christian vision, "In God's family, learning, loving, growing to be our very best," is at the heart of our curriculum.

Design and Technology provides rich opportunities for children to live out this vision. Through designing, making and evaluating, pupils are encouraged to be creative, curious and resilient, to learn from mistakes and to persevere when ideas need adapting or improving. They work collaboratively, listening to and valuing the ideas of others, while developing the confidence and independence to make thoughtful decisions.

D&T also encourages children to consider the needs of others when designing purposeful products and to think carefully about materials, resources and the impact of their choices. In this way, children learn that their creativity, knowledge and practical skills can be used to serve others and make a positive difference.

2. Intent

At Tanworth-in-Arden Church of England Primary School and Nursery, we believe Design and Technology (D&T) provides all children with valuable opportunities to be creative, curious, practical and resourceful. Through designing and making purposeful products, children learn to identify problems, explore possibilities, make informed choices, develop practical skills and evaluate how successfully their ideas meet a particular need.

Our D&T curriculum reflects our commitment to inclusion and flourishing. We want every child to develop the knowledge, skills and confidence to become an increasingly independent designer and maker, while learning to collaborate successfully with others.

Our curriculum follows the requirements of the National Curriculum for Design and Technology and is supported by the Design & Technology Association's Projects on a Page materials. The curriculum enables children to design and make products that address real and relevant problems within a range of contexts.

3. Aims

In line with the National Curriculum, we aim to ensure that all pupils:

- develop the creative, technical and practical expertise needed to carry out everyday tasks confidently;
- build and apply knowledge, understanding and skills to design and make high-quality prototypes and products for a range of users;
- critique, evaluate and test their ideas and products, as well as the work of others;
- understand and apply the principles of nutrition and learn how to cook.

At Tanworth-in-Arden, we also aim for pupils to:

- develop curiosity, creativity and confidence as designers;

- understand that products are designed for a purpose and user;
- investigate existing products and learn from designers, inventors and engineers;
- develop increasingly sophisticated practical and technical skills;
- use appropriate technical vocabulary confidently;
- make thoughtful choices about materials, components, mechanisms and processes;
- develop resilience by testing, adapting and improving their ideas;
- understand that successful design involves an iterative process, rather than simply making a finished product;
- recognise and apply meaningful links between D&T and mathematics, science, computing and art.

4. Curriculum Organisation

The school uses the Design & Technology Association's Projects on a Page to support curriculum planning and progression across Key Stages 1 and 2.

Projects on a Page supports curriculum-linked learning across areas including food, textiles, structures, mechanisms and electrical systems, enabling skills and knowledge to be developed progressively from Year 1 to Year 6.

Teachers use these materials alongside the National Curriculum and the school's curriculum progression documents. Projects on a Page is used as a framework rather than a script, allowing teachers to ensure appropriate progression while adapting projects to the needs of the children, the context and the wider curriculum.

Across a sequence of learning, pupils are given opportunities to:

Investigate and evaluate

Explore existing products, considering how and why they have been designed, who they are intended for and how effectively they work.

Design

Identify a user and purpose, develop design criteria and generate, model, communicate and refine ideas.

Make

Select and use appropriate materials, components, tools, equipment and techniques with increasing skill, accuracy and independence.

Evaluate

Test the finished product against its original purpose and design criteria, identifying strengths and possible improvements.

Develop technical knowledge

Build increasingly secure knowledge of structures, mechanisms, mechanical and electrical systems, textiles, materials and food technology, as appropriate to each key stage.

Designing and making is therefore understood as an iterative process, where children test, evaluate, modify and improve their ideas rather than focusing solely on the creation of a final product.

5. Early Years Foundation Stage

D&T begins within our Nursery and Reception provision through purposeful exploration, play and adult-guided experiences.

Children have opportunities to:

- explore, handle and combine different materials;
- build and construct for different purposes;
- use simple tools and techniques safely;
- talk about what they intend to make;
- make choices about materials and resources;
- investigate how objects and simple mechanisms work;
- develop fine-motor control and practical skills;
- adapt and improve their creations;
- develop an early understanding of food, cooking and healthy choices.

These experiences establish important foundations for the more structured designing and making encountered in Key Stage 1.

6. Key Stage 1

Pupils undertake creative and practical activities in relevant and meaningful contexts.

They learn to design purposeful and appealing products based on simple design criteria and communicate their ideas through approaches including talking, drawing, templates and mock-ups.

Pupils develop the ability to select appropriate tools, materials and components and practise skills including cutting, shaping, joining and finishing.

They investigate existing products and evaluate their own ideas and finished products against their original design intentions.

7. Key Stage 2

During Key Stage 2, pupils become increasingly independent and sophisticated designers and makers.

They use research to inform their designs and consider the needs of particular users. Children develop and communicate their ideas in progressively more sophisticated ways and select appropriate materials, components, tools and processes based upon their functional properties.

Pupils investigate and analyse existing products, evaluate their own work against design criteria and consider possible improvements. They also develop an understanding of how significant individuals and developments have influenced design and technology.

8. Food and Nutrition

Food technology forms an important part of our D&T curriculum.

Children progressively develop knowledge and practical skills relating to food preparation, healthy eating and nutrition. They develop an understanding of where food comes from and, as they progress through school, learn about seasonality and how a range of ingredients are grown, reared, caught and processed.

Pupils are taught appropriate practical techniques and are encouraged to work safely, hygienically and increasingly independently.

Food activities are planned with careful consideration of:

- hygiene and food safety;
- allergies and intolerances;
- dietary requirements;
- individual healthcare needs;
- appropriate supervision and use of equipment.

9. Inclusion and SEND

D&T is an inclusive subject and provides opportunities for every child to participate, succeed and flourish.

Teachers adapt teaching, resources, equipment and approaches appropriately while maintaining ambition for all pupils.

Adaptations may include:

- modelling practical processes explicitly;
- breaking instructions into manageable steps;
- using visual prompts and demonstrations;
- pre-teaching technical vocabulary;
- providing adapted tools and equipment where required;
- providing additional opportunities to practise practical techniques;
- offering alternative ways of recording or communicating designs;
- providing appropriate adult or peer support.

Children with SEND have access to the same rich and ambitious D&T curriculum and meaningful design process as their peers, with adaptations made to remove barriers to learning rather than unnecessarily reducing ambition.

Teachers ensure that disadvantaged pupils and those with SEND are supported to access the full D&T curriculum. Pupils who demonstrate particular aptitude are challenged through increasingly complex design decisions, greater independence and opportunities to refine and justify their choices.

10. Assessment

Assessment in D&T is primarily formative and takes place throughout the design and making process.

Teachers assess pupils' developing:

- substantive and technical knowledge;
- designing skills;
- practical and making skills;
- understanding and application of technical vocabulary;
- ability to select appropriate materials, tools and components;
- ability to apply technical knowledge;
- ability to evaluate products and identify improvements;
- independence and ability to apply previous learning to new contexts.

Assessment considers the whole design process, not simply the quality or appearance of the final product.

Teachers use assessment to identify what pupils know, remember and can do and to inform subsequent teaching and curriculum development.

11. Cross-Curricular Learning

D&T provides meaningful opportunities for pupils to apply knowledge and skills from across the curriculum.

Links may include:

- **Mathematics:** measurement, shape, accuracy and scale;
- **Science:** materials, forces, electricity and nutrition;
- **Computing:** programming, control and computer-aided design;
- **Art and Design:** creativity, drawing, modelling, colour, form and finish;
- **English:** discussion, explanation, instructions and technical vocabulary.

These connections strengthen children's learning, but D&T retains its own distinctive body of knowledge, technical vocabulary and design process.

12. Health and Safety

Pupils are explicitly taught how to use tools, equipment and materials safely and responsibly.

Teachers:

- model the safe use of tools and equipment;
- select resources appropriate to pupils' ages, abilities and needs;
- establish clear expectations for practical activities;
- consider hazards and risks when planning practical work;
- supervise practical activities appropriately;
- ensure children are taught how to handle tools and materials responsibly;
- follow the school's relevant health and safety, allergy and food hygiene procedures.

Safety is taught as an integral part of becoming an increasingly independent and responsible designer and maker.

13. Resources

D&T resources are selected to support the planned curriculum and allow pupils to work with an increasingly broad range of tools, materials and components.

Resources should be appropriately organised, maintained and replenished. Staff should report damaged or unsuitable equipment and ensure resources are stored safely following use.

The Subject Leader monitors resources to ensure they are appropriate for the curriculum and support high-quality teaching and learning across the school.

14. Role of the Subject Leader

The Design and Technology Subject Leader is responsible for supporting the effective implementation and continued development of D&T across the school.

This includes:

- maintaining a clear overview of curriculum coverage and progression;
- ensuring appropriate progression from EYFS through to Year 6;
- supporting colleagues with subject knowledge, planning and resources;
- monitoring teaching and learning through agreed school monitoring processes;
- reviewing children's work and speaking to pupils about their learning;
- identifying strengths and areas for further development;
- supporting the consistent and effective use of Projects on a Page;
- ensuring resources are appropriate to curriculum requirements;
- identifying relevant professional development for staff;
- ensuring the curriculum remains inclusive and ambitious for all learners;
- reporting appropriately to senior leaders and governors.

15. Monitoring and Review

The effectiveness of the D&T curriculum is monitored through the school's established curriculum monitoring processes.

This may include:

- scrutiny of pupils' work and design portfolios;
- pupil voice;
- discussions with teachers;
- curriculum and planning reviews;
- consideration of progression across year groups;
- review of assessment information where appropriate;
- monitoring the implementation of Projects on a Page.

Monitoring focuses particularly on whether pupils are knowing more, remembering more and becoming increasingly confident, skilled and independent designers and makers.

The Subject Leader uses monitoring to identify strengths, address areas for development and ensure that the D&T curriculum remains ambitious, inclusive and aligned with the school's Christian vision.

This policy and associated curriculum documentation are reviewed periodically to ensure that they continue to reflect statutory requirements, the needs of our pupils and the school's wider curriculum vision.

Useful References

- National Curriculum for Design and Technology, Key Stages 1 and 2
- Design & Technology Association: Projects on a Page