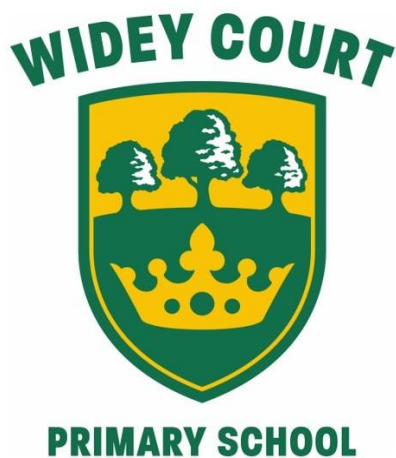


WIDEY COURT PRIMARY SCHOOL

Design & Technology Policy



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<i>Date of next Review:</i>	<i>September 2027</i>
<i>Who reviewed this policy:</i>	<i>Miss Rebecca Williams</i>

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Widey Court Primary School
Design and Technology Policy
Reviewed: January 2024

1) Rationale:

At Widey Court Primary School, we believe that Design & Technology is an inspiring, practical and creative subject which enables pupils to understand how ideas can be developed into products that solve real and relevant problems.

Our Design & Technology curriculum provides pupils with opportunities to develop creative and critical thinking alongside practical skills, technical knowledge and an understanding of the design process. Pupils are encouraged to become resourceful, resilient and independent problem-solvers who are willing to develop, test, adapt and improve their ideas.

We want pupils to understand that Design & Technology is an important part of everyday life and has a significant role in shaping the world around us. Through studying existing products and the work of designers, engineers, chefs and other practitioners, pupils develop an understanding of how design and technology can respond to people's needs, wants and values.

At Widey Court, pupils experience a broad range of Design & Technology disciplines, including **Structures**, Mechanisms, Electrical Systems, Computer Programming and CAD, Textiles, and Cooking and Nutrition. Each area provides opportunities for pupils to acquire and apply knowledge and skills through purposeful design and making activities.

Our curriculum is underpinned by the iterative process of **Design, Make and Evaluate**. Pupils are taught that successful design involves research, creativity, practical application, testing, evaluation and improvement.

Where appropriate, Design & Technology makes meaningful connections with other areas of the curriculum, including mathematics, computing, art and design, science, English and geography. However, Design & Technology has its own distinct body of knowledge, vocabulary, skills and processes which are explicitly taught and developed.

2) Our Intent:

At Widey Court Primary School, our intent is for every pupil to develop the creative, technical and practical expertise needed to participate confidently in an increasingly technological world.

Through our Design & Technology curriculum, pupils will:

- develop an understanding of the **Design, Make and Evaluate** process;
- develop the ability to identify and solve real and relevant problems;
- design purposeful, functional and appealing products for particular users;
- understand the importance of the client or intended user when developing a product;
- research and evaluate existing products;
- develop and communicate their ideas in a variety of ways;
- use sketches, drawings, templates, prototypes, mock-ups, models and, where appropriate, computer-aided design;
- develop practical skills through purposeful hands-on experiences;
- select and use appropriate materials, components, ingredients, tools and equipment;
- develop increasing accuracy, control and independence when making;
- acquire and apply technical knowledge;
- develop knowledge and skills across Structures, Mechanisms, Electrical Systems, Computer Programming and CAD, Textiles, and Cooking and Nutrition;
- develop resilience by recognising that designs can be tested, adapted and improved;
- evaluate their own products and designs against agreed criteria;
- consider the needs, wants and values of users;
- consider the environmental and wider impact of design decisions;
- use appropriate technical vocabulary when discussing and evaluating their work;
- learn about the contribution of designers, engineers, chefs and other practitioners;

- develop an understanding of the importance of Design & Technology in everyday life and the wider world;
- develop practical skills and knowledge which will support them in future education, employment and everyday life.

The National Curriculum describes Design & Technology as an inspiring, rigorous and practical subject in which pupils use creativity and imagination to design and make products that solve real and relevant problems. Our curriculum reflects this purpose.

3) Aims:

Our Design & Technology curriculum aims to ensure that all pupils:

- develop a love of designing, making and problem-solving;
- develop creative and critical thinking;
- become confident and independent designers and makers;
- understand that products are designed for particular purposes and users;
- develop a broad range of practical skills;
- acquire and apply technical knowledge;
- understand the properties and characteristics of a range of materials;
- select appropriate tools, equipment, materials, components and techniques;
- develop their ability to communicate and refine ideas;
- develop resilience when designs do not initially work as intended;
- understand the importance of testing and modification;
- evaluate existing products and understand the choices made by designers;
- evaluate their own products against design criteria;
- develop increasing accuracy and independence in practical work;
- develop an understanding of sustainability and the impact of design decisions;
- understand the importance of healthy eating, food preparation and cooking as essential life skills;
- develop confidence in using tools and equipment safely;
- understand how Design & Technology can improve people's lives;
- recognise the contribution of designers, engineers, chefs, technologists and other professionals;
- develop awareness of careers linked to Design & Technology;
- develop skills and knowledge which can be transferred to future learning and everyday life.

4) Teaching and Learning:

4a) Foundation Stage:

Design & Technology is introduced in the Early Years Foundation Stage through purposeful opportunities to explore, create, construct, design and make.

Children will have regular opportunities to explore materials, tools and construction resources through continuous provision and focused adult-led activities.

Through these experiences, children will be encouraged to:

- explore and select from a range of materials;
- build, construct, join and manipulate materials;
- explore how materials can be combined;
- develop fine motor control through practical activities;
- use tools safely and appropriately;
- communicate ideas through drawing, modelling, construction and making;
- create and adapt designs;
- solve simple problems through practical exploration;
- develop independence in selecting resources and tools;
- talk about what they have made and how they made it;
- develop confidence in trying new techniques and approaches.

Opportunities within Expressive Arts and Design, alongside Physical Development and other areas of learning, support children in developing the practical and creative skills which form the foundations for later Design & Technology learning.

In EYFS, the emphasis is on exploration, creativity, construction, problem-solving and developing practical skills, rather than formal recording of the Design, Make and Evaluate process.

4b) Years 1-6:

Design & Technology is taught in accordance with the National Curriculum for England and the school's Design & Technology progression of knowledge and skills.

Our curriculum is carefully sequenced to ensure that pupils build on previous learning and develop increasingly sophisticated knowledge, vocabulary and practical skills as they progress through the school.

The key concepts of **Design, Make and Evaluate** are taught across all Design & Technology units.

Pupils are taught to understand that designing and making is an iterative process. They may move between designing, making and evaluating as they develop and refine their ideas.

Design

Pupils will:

- identify and understand a design problem;
- consider the intended user or client;
- establish a clear purpose;
- research existing products;
- carry out appropriate market research where relevant;
- develop design criteria;
- generate and develop ideas;
- communicate ideas through drawing, discussion and modelling;
- use templates, prototypes and mock-ups where appropriate;
- select suitable materials, components and techniques;
- refine their designs in response to testing and feedback.

As pupils progress through the school, they will increasingly use more detailed drawings, annotations, diagrams, prototypes, pattern pieces and computer-aided design.

Make

Pupils will:

- select appropriate tools, equipment, materials, components and ingredients;
- develop and apply practical skills;
- measure and mark accurately where appropriate;
- cut, shape, join, assemble and finish materials;
- follow and adapt plans;
- use appropriate techniques for the product being made;
- work independently, in pairs and collaboratively;
- develop increasing accuracy and control;
- use tools and equipment safely;
- develop increasing independence when making products.

Evaluate

Pupils will:

- investigate and evaluate existing products;
- consider how and why products have been designed;
- evaluate their own designs and products;
- test products against design criteria;
- consider the views of others;
- identify strengths and areas for improvement;
- make modifications where appropriate;
- consider the function, appearance and suitability of their products;
- consider the impact of products and materials on people and the environment.

The National Curriculum requires pupils to engage in an iterative process of designing and making and to evaluate their ideas and products against design criteria. At KS2, pupils also consider the views of others and how key events and individuals have shaped Design & Technology.

5) Areas of Design & Technology

At Widey Court Primary School, Design & Technology is organised into six key strands:

1. **Structures**
2. **Mechanisms**
3. **Electrical Systems**
4. **Computer Programming and CAD**
5. **Textiles**
6. **Cooking and Nutrition**

Each strand is taught through the **Design, Make and Evaluate** process and contributes to pupils' developing technical knowledge and practical expertise.

5a. Structures

Pupils develop knowledge and practical skills relating to structures.

They learn about:

- different types of structures;
- how structures can be made stronger, stiffer and more stable;
- how materials can be joined to create structures;
- the suitability of different materials for particular structural purposes;
- how structural choices affect the function and stability of a product.

Pupils apply their knowledge when designing, making, testing and evaluating structural products.

5b. Mechanisms

Pupils develop an understanding of how mechanisms can create, control or change movement.

Across the school, pupils encounter mechanisms including:

- sliders;
- levers;
- wheels and axles;
- linkages;
- cams;
- gears;
- pulleys

Pupils learn to identify appropriate mechanisms for a particular purpose and apply their knowledge when designing and making functional products.

As pupils progress through the school, they develop increasingly sophisticated understanding of how mechanical systems work and how they can be incorporated into products.

5c. Electrical Systems

Pupils develop knowledge and practical understanding of electrical systems and components.

This includes opportunities to work with:

- switches;
- bulbs/LEDs;
- buzzers;
- motors;
- batteries/cells;
- series circuits.

Pupils learn how electrical components can be combined to create functional products and apply this knowledge when designing and making.

Electrical systems are taught progressively, with pupils developing increasing confidence in constructing, testing and evaluating simple circuits and incorporating them into products. The National Curriculum specifically requires KS2 pupils to understand and use electrical systems in products, including series circuits incorporating switches, bulbs, buzzers and motors.

5d. Computer Programming and CAD

Computer programming and computer-aided design form an important part of our Design & Technology curriculum.

Pupils develop an understanding of how computing can be used as part of the design and development of products.

Opportunities may include:

- using computer-aided design to develop and communicate ideas;
- using digital tools to create and modify designs;
- developing simple programs;
- programming products;
- monitoring and controlling products;
- using digital technology to support the design and making process.

Pupils are encouraged to recognise how digital technologies are increasingly used within modern design, engineering and manufacturing.

The National Curriculum requires pupils at KS2 to apply their understanding of computing to program, monitor and control products.

5e. Textiles

Textiles is a distinct and significant strand of the Design & Technology curriculum at Widey Court Primary School.

Pupils develop knowledge and practical skills through designing, making and evaluating a range of textile products for particular users and purposes.

Across the school, pupils progressively develop their understanding of:

- different textile materials and their properties;
- the suitability of different fabrics for particular purposes;
- measuring and cutting textile materials;
- joining and assembling fabrics;
- sewing techniques;
- different types of stitch;
- fastening techniques;
- templates and pattern pieces;
- decorative and embellishment techniques;
- combining different textile materials;
- selecting appropriate materials and techniques;
- the functional and aesthetic qualities of textile products;
- designing and making textile products for a particular user and purpose;
- evaluating and improving textile products.

Pupils develop increasing accuracy, control, independence and confidence when working with textiles.

The progression of textile skills is carefully planned so that pupils revisit previously taught techniques while developing new and increasingly challenging skills.

Textiles is not treated simply as an opportunity to decorate or produce a craft item. Pupils are taught to consider function, user, purpose, materials, techniques and design criteria throughout the process.

The National Curriculum specifically identifies textiles as one of the materials pupils should work with when designing and making products. At KS2, pupils are expected to select and use a wider range of materials, including textiles, according to their functional properties and aesthetic qualities.

5f. Cooking and Nutrition

Cooking and Nutrition is a distinct strand of our Design & Technology curriculum. Pupils develop practical cooking skills alongside knowledge and understanding of:

- healthy and varied diets;
- food preparation;
- cooking techniques;
- food hygiene and safety;
- where food comes from;
- seasonality;
- ingredients and their uses;
- adapting recipes;
- cultural and historical foods;
- evaluating food products.

Pupils develop increasing confidence, independence and accuracy when preparing and cooking food.

Where appropriate, pupils consider the intended user when designing and preparing food and evaluate their finished products against their design brief.

The National Curriculum requires pupils to understand and apply the principles of nutrition and learn how to cook. It also sets progressive expectations for healthy diets, food preparation, cooking techniques, seasonality and where food comes from.

6) Curriculum Organisation and Progression

Our Design & Technology curriculum is organised to ensure progressive development of knowledge and skills from EYFS to Year 6.

The school's Design & Technology progression of knowledge and skills document identifies the knowledge and practical skills to be taught within each year group.

Pupils encounter a range of Design & Technology strands throughout their primary education, including:

- Structures;
- Mechanisms;
- Electrical Systems;
- Computer Programming and CAD;
- Textiles;
- Cooking and Nutrition.

The coverage across the school includes opportunities to revisit and develop skills in different contexts.

For example, pupils progressively develop their understanding of structures through frame structures, shell structures and freestanding structures. Mechanisms develop from simple sliders through wheels and axles, levers and linkages, to gears and pulleys. Textiles develop from simple stitching to increasingly sophisticated stitching, fastening and decorative techniques.

Cooking and Nutrition similarly develops from basic food preparation and cutting techniques towards increasingly independent cooking, recipe adaptation and consideration of cultural and historical foods. This progression ensures that pupils are not simply completing increasingly complicated practical activities, but are developing a secure body of knowledge, technical vocabulary and practical expertise.

Each Design & Technology unit will have a clear:

- purpose;
- client or intended user;
- design brief;
- design criteria;
- sequence of knowledge and skills;
- opportunity for research and evaluation;
- focused practical skill development;
- designing phase;
- making phase;

- testing and evaluation phase.

7) Knowledge, Vocabulary and Retrieval

Design & Technology teaching will develop both substantive knowledge and practical and disciplinary skills.

Technical vocabulary will be explicitly introduced and revisited throughout each unit. Pupils will have opportunities to:

- hear and use subject-specific vocabulary;
- explain processes using appropriate terminology;
- retrieve previously taught knowledge;
- apply vocabulary when discussing their designs and products;
- explain why particular materials, tools or techniques have been selected;
- evaluate products using appropriate technical language.

Knowledge organisers and ROCKS (Remembering Our Curriculum Knowledge and Skills) will support the retrieval and retention of important knowledge and vocabulary. Previous learning will be deliberately revisited so that pupils can build a coherent body of Design & Technology knowledge over time.

Teachers will identify the essential knowledge and vocabulary that pupils need to remember and will provide regular opportunities for retrieval and application.

8) Inclusion and SEND

Design & Technology should be accessible to all pupils.

Teachers will identify barriers to participation and make appropriate adaptations so that pupils with SEND and other additional needs can access the curriculum and experience success.

Adaptations may include:

- modified tools or equipment;
- adapted handles or grips;
- templates and visual prompts;
- pre-cut or partially prepared materials where appropriate;
- additional modelling;
- scaffolded design tasks;
- additional adult support;
- alternative ways of recording ideas;
- carefully structured paired or group work;
- additional time;
- adapted recipes or ingredients where appropriate.

Adaptation should support pupils to access the intended learning without unnecessarily reducing the ambition of the curriculum.

All pupils should be given opportunities to develop practical independence and experience the satisfaction of designing and making their own products.

9) Assessment and Marking

Assessment in Design & Technology focuses on pupils' knowledge, understanding, practical skills and ability to apply the Design, Make and Evaluate process.

Assessment takes place throughout a unit rather than relying solely on the finished product.

Teachers assess pupils through:

- questioning and discussion;
- retrieval activities;
- observation of practical work;
- assessment of technical knowledge;
- observation of tool and equipment use;
- evaluation of designs;
- completed products;
- pupils' explanations;
- pupils' ability to apply taught techniques;
- evaluation against the design brief and success criteria.

Teachers consider both the process and the outcome of pupils' work.

A successful Design & Technology outcome is not necessarily the most visually polished product.

Pupils should be assessed on the extent to which they understand the design process, apply their knowledge and skills, make appropriate decisions, solve problems and evaluate their work.

Pupils will be encouraged to evaluate their own work and, where appropriate, the work of others. They will identify:

- what worked well;
- what could be improved;
- whether the product meets the design criteria;
- how the product could be adapted or developed further.

Assessment information will inform future teaching and support teachers in identifying pupils requiring additional support or challenge.

10) Health and Safety

Health and safety is an essential part of Design & Technology.

Pupils will be explicitly taught how to use tools, equipment, materials and ingredients safely before undertaking practical activities.

Teachers and support staff will:

- check equipment before use;
- remove damaged or unsafe equipment;
- ensure tools and equipment are appropriate for pupils' age and ability;
- model safe use of tools and equipment;
- maintain appropriate supervision;
- identify foreseeable hazards;
- undertake proportionate risk assessments where required;
- ensure pupils understand relevant safety procedures;
- follow the school's Health & Safety procedures.

Pupils will be expected to:

- listen carefully to safety instructions;
- use tools and equipment appropriately;
- follow agreed classroom routines;
- report accidents, damage or concerns immediately;
- take responsibility for maintaining a safe working environment;
- clean and store equipment appropriately.

10a. Food Safety and Allergies

When teaching Cooking and Nutrition, staff will follow school procedures for food hygiene and allergy safety.

This includes:

- checking pupil allergies and dietary requirements before food is purchased, prepared or consumed;
- following the school's allergy safety procedures;
- preventing cross-contamination;
- appropriate hand washing;
- cleaning and preparing surfaces;
- safe preparation and storage of ingredients;
- safe use of cooking equipment;
- appropriate use of heat and electrical equipment;
- following food hygiene guidance;
- considering religious, cultural and dietary requirements.

Staff must check ingredient labels and relevant allergen information before ingredients are used.

Any concerns relating to allergies or dietary requirements must be raised with the appropriate member of staff before the activity takes place.

The Department for Education published new statutory Allergy Safety in Schools guidance in July 2026. Our Design & Technology practice will operate in accordance with the school's wider allergy safety arrangements and relevant statutory guidance.

11) Sustainability and the Wider World

Pupils will be encouraged to consider the wider impact of design decisions.

Where appropriate, pupils will consider:

- where materials and ingredients come from;
- how products are made;
- waste;
- reuse and recycling;
- responsible use of resources;
- durability and product lifespan;
- sustainable food choices;
- environmental impact;
- how design can improve people's lives.

Pupils will learn that designers and engineers have responsibilities towards users, communities and the environment.

Sustainability will be explored in an age-appropriate way and incorporated into design decisions where it is relevant to the product or design brief.

12) Role of the Subject Lead:

The Design & Technology Subject Lead is responsible for supporting the development, implementation and monitoring of Design & Technology across the school.

The subject lead will:

- maintain and review the Design & Technology policy;
- ensure curriculum coverage and progression;
- ensure the curriculum reflects the National Curriculum;
- support staff with planning and subject knowledge;
- monitor teaching and learning;
- monitor pupils' knowledge and skills;
- review assessment information;
- monitor books, sketchbooks and completed products;

- undertake learning walks and pupil voice activities;
- support staff in selecting appropriate resources;
- maintain an overview of equipment and consumables;
- identify resource and training needs;
- ensure that the six Design & Technology strands are appropriately represented across the school;
- promote Design & Technology across the school;
- support opportunities for pupils to encounter real-world applications of Design & Technology;
- ensure that the curriculum is reviewed in response to current practice, school priorities and relevant national guidance;
- evaluate the impact of the curriculum and identify priorities for development;
- report to SLT and governors where appropriate.

Monitoring will focus on the quality, progression and impact of the curriculum, rather than simply whether activities have been completed.

13) Resources

The school will provide appropriate resources to enable pupils to access the Design & Technology curriculum.

The subject lead will maintain an overview of resources and identify:

- equipment requiring replacement;
- consumables required for upcoming units;
- resources needed to support curriculum development;
- equipment requiring maintenance;
- opportunities for responsible and sustainable use of materials.
-

Resources will be stored safely and appropriately.

Particular attention will be given to ensuring that pupils have access to appropriate resources for all six strands of the curriculum, including structures, mechanisms, electrical systems, computer programming and CAD, textiles, and cooking and nutrition.

14) Conclusion

At Widey Court Primary School, we want every pupil to leave primary school with the confidence to think creatively, solve problems, design purposefully and make products using a range of practical and technical skills.

Through a carefully sequenced Design & Technology curriculum, pupils develop knowledge and skills across Structures, Mechanisms, Electrical Systems, Computer Programming and CAD, Textiles, and Cooking and Nutrition.

The Design, Make and Evaluate process enables pupils to understand that good design involves research, creativity, practical application, testing, evaluation and improvement.

We aim to develop pupils who are creative, curious, resilient, resourceful and willing to experiment, adapt and improve their ideas.

We want pupils to recognise the important role that Design & Technology plays in everyday life and the wider world and to leave Widey Court with a positive attitude towards designing, making, problem-solving and technological innovation.

This policy should be read in conjunction with:

- Teaching and Learning Policy
- Assessment Policy

- SEND Policy
- Equality Policy
- Health & Safety Policy
- Allergy Safety Policy
- Food Safety procedures
- Curriculum and Progression Documents
- Safeguarding and Child Protection Policy

Signed: R. Williams

Date: 14.09.2026