Design and Technology Policy

Policy Name:	Design and Technology
Approved Date:	September 2022
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Contents

Exceptionality **Collaboration** **Integrity** **Respect**

Design and Technology Policy

Our School Vision

Vision

Our vision is to create extraordinary learning,
for all of our children to be proud of their achievements,
develop resilience and grow as learners so that they can discover
their place in the world, where their possibilities are endless!
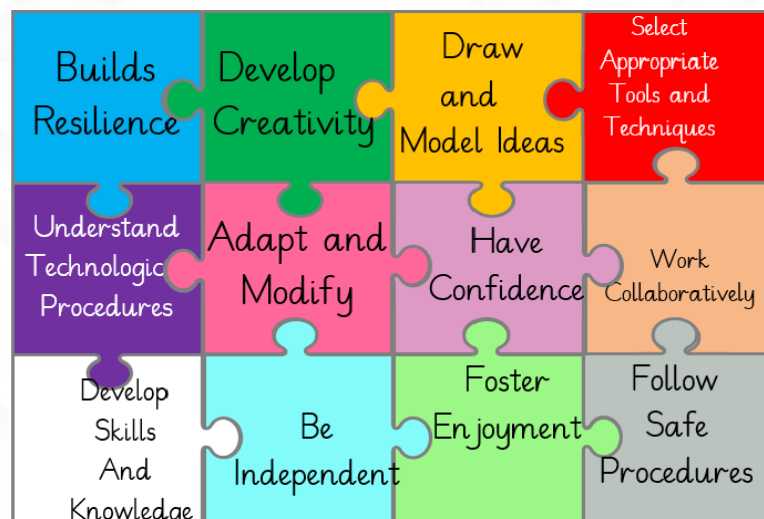
Curriculum Intent

Design and technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems. Through the study of design and technology they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and technology helps all children to become discriminating and informed consumers and potential innovators.

Our Design Technology curriculum is seen in its widest sense as the entire planned learning experience. This includes formal lessons as well as events, routines and learning that takes place outside the classroom.

Our Design and Technology curriculum is designed to allow pupils to:

Builds Resilience	Develop Creativity	Draw and Model Ideas	Select Appropriate Tools and Techniques
Understand Technologic Procedures	Adapt and Modify	Have Confidence	Work Collaboratively
Develop Skills And Knowledge	Be Independent	Foster Enjoyment	Follow Safe Procedures

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Our Curriculum Design

In our Design and Technology curriculum, we ensure that both the **disciplinary knowledge, substantive and procedural knowledge** is built upon year on year.

Disciplinary knowledge – represents the methods or conceptual frameworks used by designers.

Substantive knowledge – is organised into four interrelated disciplines – **designing, making, evaluating** and **technical knowledge** to ensure that pupils' knowledge, skills and understanding are built upon.

Procedural knowledge – represents the skills of a designer.

Key Concepts:

- Cooking and nutrition
- Electric and digital
- Mechanics
- Textiles
- Structures

Second Order Concepts:

- **Responsibility** - working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality/reliable products, healthy eating, quality ingredients
- **Similarity and difference** - making comparisons, noting differences, and drawing conclusions
- **Cause and consequence** - identifying how things work, how an action can cause change/movement
- **Significance** - significant designers and designs, real world examples of effective and successful products
- **Written and oral expression** - Using terminology, evaluating, creating accurate designs, labelling, and annotating, explaining processes, presenting

Teaching sequence in Design and Technology:

- Introduction — children retrieve prior knowledge of previous projects.
- Appraise - children are introduced to their new project and are told what the end point will be. Then, they appraise the work of other designers and of existing products in terms of form, function and aesthetics.
- Analyse - children will examine the techniques, skills and tools required to create existing products. Then, they will gain the technical knowledge of how the existing products were made or work.

- Practise - before the children design, they will practise the skills required to create a sample/model. Practising the skills will then inform their design.
- Generate Ideas & Design - children are given a design criteria. They will design a product to meet the design criteria and will generate ideas about materials, tools and techniques to create their product.
- Develop & Make - children will follow their designs and apply the knowledge and skills to create a finished product that meets their design brief.
- Evaluate - children evaluate their end product against the design criteria and a set of questions/statements.

Curriculum Implementation

Organisation and Planning

In Early Years,

From the Early Years Foundation Stage children will have the opportunity to engage with Design and Technology and build upon their own experiences using a variety of materials and media. Children will begin to draw with increasing complexity, manipulate different materials and explore different textures. They will learn to construct with a purpose in mind and collaborate by sharing ideas, resources and skills.

In Key Stage 1,

In Key Stage 1, The Design and Technology curriculum will allow children to express themselves creatively with increasing confidence. Children will be stimulated by the tactile, expressive and intellectual nature of Design and Technology through designing, making and evaluating. Pupils will begin to look at their outcomes critically in order to plan for improvements and judge if their finished product successfully meets their design criteria.

In Key Stage 2,

Advancing through the Design and Technology programmes of study will give children the opportunity to become autonomous problem-solvers, allowing them to make positive changes to their quality of life. It enables them to identify needs and demands, and respond to these by developing ideas and eventually making products and systems. They will combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and Technology helps all children to become discriminating and informed consumers and potential innovators.

Our Children's Charter

Our children are entitled to a world class curriculum which enables then to:

- Feel successful in their Design Technology learning and reach their full potential.

- Enjoy learning and experience awe and wonder through the Design Technology curriculum that is provided.

- Have a voice, be heard and have the flexibility to decide what they are going to learn and how.

- Have the chance to learn about Britain's cultural heritage and about the world in which they live.

- To develop their creativity, develop critical thinking by analysing their plan and designs, adapting upon these, to be independent and learn from one another.

- Learn in different ways, both inside and outside the classroom, inside and outside of school.

- Be recognised for their achievements which support them in being the adults of tomorrow.

Inclusion

At our school we teach design and technology to all children, whatever their ability. Design and technology forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our design and technology teaching we
provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

Intervention through School Action and School Action Plus will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to design and technology.

We enable pupils to have access to the full range of activities involved in learning design and technology. Where children are to participate in activities outside the classroom, for example, a museum or factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

In design & technology staff will develop differentiated weekly plans to ensure pupils who are identified as working at a greater depth in design and technology and are achieving exceptionally high levels of achievement are catered for. For these pupils accelerated learning experiences where programmes of study from the next school phase or Keystage are accessed by the pupils through investigative work, or enrichment activities are planned for giving these pupils open ended investigations to complete that link to the design & technology programmes of studies being covered.

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Curriculum Impact

The impact of the curriculum design will lead to outstanding progress over time at all key stages, from the children's starting points. The rich and broad curriculum and units of work will enable teachers to consistently plan lessons progressively, building on prior knowledge and the development of key skills in order to deliver lessons of the highest standard and children's outcomes to be of the highest quality. Children will be confident, resilient, self-motivated, independent learners, with a depth of understanding of the changing world.

The monitoring of the standards of children's learning and of the quality of teaching in design and technology is the responsibility of the design and technology subject leader. The work of the subject leader also involves supporting colleagues in the teaching of design and technology, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. The design and technology subject leader has specially-allocated, regular management time in order to review evidence of the children's work and undertake lesson observations of design and technology teaching across the school.

Our assessment system of building blocks will be used by the children and staff to reflect on the progress that is being made over time. Senior leaders will evaluate the progress that has been made and the impact the Design and Technology curriculum to ensure all pupils, including the most disadvantaged and pupils with SEND, have been given the knowledge and cultural capital they need to succeed in life.

Links to other Policies

- Teaching and Learning Policy
- Feedback and Marking Policy
- Assessment policy
- SEND policy
- Equality information Policy

Review

This policy will be reviewed annually by staff and governors
The Governors may however review the policy earlier than this if Government introduce new regulations or if the Governing Body receive recommendations about how the policy may be improved.