

Wingate Primary School

Design and Technology Policy

2022 - 2023

Wingate Primary School Design & Technology policy

Respecting Rights

The policy is written with consideration to our school commitment to the Rights of the Child and our achievement of becoming a Rights Respecting School and it complies with Article 28 of the UNCRC 'Every child has the right to an education' as well as Article 29 'Education must develop every child's personality, talents and abilities to the full.' Although direct reference to this is not continuously made, the policy has been written with full awareness of our responsibility and commitment to children's Rights.

Our Whole School Intent Statement

The rights and dignity of our children are at the heart of everything we do, every decision we and they make and every driver for making progress and helping our children to develop as responsible, valued global citizens who want to make a positive contribution to their and our world.

In our school, it is our intent that we help children to develop resilience, perseverance, autonomy and focus. Our children learn that they are valued and valuable, they are independent people in their own right and they have the power to do wonderful, amazing things at every stage of every day.

Every one of our children is a unique individual with their own strengths, aptitudes, interests and dreams. As a school community, we will endeavour to support each child to make the most of every opportunity we offer.

We provide enriching experiences to engage learners and in designing and developing our curriculum we have taken into consideration

- how children learn and remember; progress means knowing more and remembering more
- what our children need to succeed in life; the cultural capital they need to make aspirational choices and succeed beyond their time at Wingate Primary School.

The key drivers for our curriculum are:

- Ambition and aspiration
- Resilience and courage
- Autonomy and independence
- Perseverance and solution finding

Intent Statement

At Wingate Primary School, Design and Technology is an inspiring, rigorous and practical subject that encourages children to learn to think and intervene creatively to solve problems, both as individuals and as members of a team. Resilience is a key theme running through our DT curriculum, and the children are encouraged to become innovators and risk-takers. At Wingate Primary School, we encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts. We also aim to make

links to designs and designers throughout history, providing opportunities for children to critically reflect upon and evaluate their designs. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. This gives learning purpose and relevance to the children.

Implementation

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an iterative process of designing and making. The children design and create products that consider function and purpose and which are relevant to a range of sectors (for example, the home, school, leisure, culture, enterprise, industry and the wider environment).

When designing and making, the children are taught to:

Design:

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer-aided design.

Make:

- select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing, as well as chopping and slicing) accurately.
- select from and use a wider range of materials, ingredients and components, including construction materials, textiles and ingredients, according to their functional properties, aesthetic qualities and, where appropriate, taste.

Evaluate:

- investigate and analyse a range of existing products.
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- understand how key events and individuals in design and technology have helped shape the world.

Technical knowledge:

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- understand and use mechanical systems in their products.
- understand and use electrical systems in their products.
- apply their understanding of computing to program, monitor and control their products
- Understand some of the ways that food can be processed and the effect of different cooking practices (including baking and grilling).

Key skills and key knowledge for Design and Technology have been mapped across the school to ensure progression between year groups. The context for the children's work in Design and Technology is also well considered and children learn about real

life structures and the purpose of specific examples, as well as developing their skills throughout the programme of study. Design and technology lessons are also taught as a block so that children's learning is focused throughout each unit of work.

Impact

We ensure the children:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users and critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child.

Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Definition

Design and Technology is a subject where children's capability in designing and making is developed through combining their designing and making skills with knowledge and understanding. At Wingate Primary School we view Design and Technology as a subject which allows children to apply their knowledge and understanding in a creative way to design and make products.

"Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation" **(National Curriculum Document 2014)**

"Tell me and I forget- show me and I may remember- let me do it, and I learn."
Learning through making works! (Prue Leith, Leith's School of Food and Wine As quoted in National Curriculum Document 2001, page 14)

Aims

- The national curriculum for design and technology aims to ensure that all pupils:
- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological

world

- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook.

Organisation

Children will be taught by EYFS staff or Key Stage 1 and 2 staff. External specialists will be used when possible. Students in school will be encouraged to consider the benefits and learning opportunities possible through Design and Technology.

Assessment and record keeping

- The Subject Co-ordinator will keep a photographic portfolio of designs, drawings, pictures and finished products. These can be used for assessment purposes and for monitoring progression through year groups.
- Floor books will be used by each year group to document the progress in DT. This can be images, prototypes or children's quotes/evaluations. These can be used to assess the progression throughout the year and to share with the co-ordinator for monitoring.
- A display of design and technology work will be set up in the general display area of school, periodically. This will include drawings, patterns, quick models and final products to demonstrate to parents the whole and making process.
- One staff meeting per year will be held for agreement trialling. Teachers will be asked to identify a child working at a specific level and bring some examples of their work. Examples of this work, including photographs, will be kept for the school portfolio.

Equal opportunities and inclusion of all children

As a Right's Respecting School, we believe that it is important for all children to experience the range of design and technology activities. We will use opportunities within design and technology to challenge stereotypes.

All children will be encouraged and supported to develop design and technological capability through a range of materials. We recognise the importance of identifying the specific difficulties that individual children might experience, and targets will be set within their IEP to reflect appropriate teaching and organisational strategies to meet their needs.

At Wingate Primary School we expect all children to participate in Design and Technology projects. Specialist equipment and support will be sought and provided for any children who need them in order that they will be included within and have access to tasks in Design and Technology.

The subject co-ordinator will liaise closely with the SENCO (Special Needs Co-ordinator) and MATCO (More Able and Talented Co-ordinator) to ensure that all our children have differentiated access to Design and Technology, including provision of special resources or equipment where necessary and possible.

Resources

All resources for EYFS are held within the EYFS classrooms. Resources for Key Stage 1 and 2 are held centrally. Within EYFS, the classroom has a Design and Technology area containing renewable and interchangeable resources including a selection of paper, plastics and metals. These resources will be renewed and replaced as appropriate, with consideration given to topics within all areas of learning across the EYFS Profile. The outdoor classroom will contain opportunities for working on Design and Technology projects, including construction kits, sand and water. Resources will be made whenever possible linked to projects which are self-generated by the children within the Foundation Stage.

- A limited range of materials and tools will be provided for Key Stage 1 and 2 children within classrooms including: paper, card, reclaimed materials, textiles, square section wood, dowelling, wheels, construction kits, hole punches, snips, scissors.
- Food resources, tools and equipment are kept in the food store area. Cooking and Nutrition lessons will be held in the new food workspace in school (Junior Site).
- Collections of products suitable to use as a stimulus for designing and making activities are stored in central store.

Health and Safety

Teachers will always teach the safe use of tools and equipment and insist on good practise.

The Role of the Design and Technology Co-ordinator is to:

- lead the development of design and technology in school
- provide guidance to individual members of staff
- keep up to date with local and national developments in design and technology and disseminate relevant information
- review and monitor the success and progress of the planned units of work
- order stock linked to the planned units of work at the end of each term
- be responsible for the organisation and maintenance of design and technology resources
- co-ordinate any display of design and technology work

This policy outlines the teaching and learning of design and technology. It reflects the views of all teaching staff and was drawn up as a result of staff discussion. This policy will be reviewed annually by the co-ordinator. The implementation of the policy is the responsibility of all teaching staff and will be monitored by the head teacher.

The policy is written with consideration to our school commitment to the Rights of the Child and our achievement of becoming a Rights Respecting School. Although direct reference to this is not continuously made, the policy has been written with full awareness of our commitment to this initiative.

This policy will be reviewed in July 2023