

# Design and Technology Subject Policy

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## **Curriculum Aims**

Design and technology is an inspiring, enjoyable 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.

At Fulfen, we aim to provide a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take sensible risks, becoming resourceful, innovative, enterprising and capable individuals. 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.

Design and technology at Fulfen should be taught through a combination of defined design and technology projects, the direct teaching of skills and through activities integrated within the learning of other National Curriculum subjects or 'themed' work.

Our passionate and critical-thinking innovators will acquire the skills:

- To have significant levels of originality and the willingness to take creative risks to produce innovative ideas and prototypes.
- To have an excellent attitude to learning and independent working.
- To have the ability to carry out thorough research, show initiative and ask questions to develop an exceptionally detailed knowledge of users' needs.
- To have the ability to act as responsible designers and makers, working ethically, using limited materials carefully and working safely.
- To have a thorough knowledge of which tools, equipment and materials to use to make their products.
- To have the ability to apply mathematical knowledge.
- To have the ability to manage risks extremely well to manufacture products safely and hygienically.
- To have a passion for the subject and knowledge of up-to-date technological innovations in materials, products and systems.

## **Curriculum Organisation and Planning**

The implementation of the design and technology curriculum at Fulfen Primary School is based on the National Curriculum aims and objectives, ensuring the teaching of a broad range of skills. Planning in school is structured systematically to ensure all areas are covered and cross-curricular links can be made.

Design and technology is not taught as a standalone subject in Early Years but does form a part of the Expressive Arts and Design area\_of the curriculum. All design and technology



objectives within the EYFS are underpinned by the objectives of the early learning goals (ELGs).

To ensure that key concepts are embedded, they are repeated throughout the years. This means pupils have the opportunity to revisit, apply and extend what they have already learnt. Pupils develop an increasing understanding of design and technology throughout the key stages.

The design and technology curriculum is structured to ensure coverage of all areas. Units are split into different termly outcomes for each year group. Units vary in length depending on the skills being taught. Where possible, links have been made with current world events and these units are taught at specific times.

Work and outcomes are recorded on Seesaw. This provides the opportunity for pupils to photograph and video their designs and creations. Planning and evaluation is also recorded on Seesaw.

## Use of Technology

iPads are used in lessons as a tool to assist with learning and to make tasks more efficient or more effective. Pupils can creatively apply what they have learnt to enable them to know and remember more as well as develop critical thinking and creative skills. Technology is used to capture pupils' imagination; support learning by removing the cognitive load; deepen understanding or scaffold learning within a lesson. Technology is used in design and technology:

- to research and record,
- for photographic reference and evidence,
- for collecting ideas,
- for recording verbal responses and annotating designs,
- for recording practical outcomes.

### Assessment and Feedback

#### <u>Assessment</u>

Throughout the year, teachers will plan on-going assessment opportunities to gauge whether pupils have achieved the key learning objectives. Teachers constantly assess children's understanding and correct misunderstandings. Teachers are responsive and alter planning to help children embed ideas and use their knowledge fluently.

Assessment will be undertaken in various forms throughout each unit, including:

• Talking to pupils and asking questions.



- Discussing pupils work with them.
- Assessing children's outcomes against the learning objectives.
- Pupils' self-evaluation of their work.

Parents will be informed about their child's attainment in design and technology during the Summer term each year. This will include information on pupils' attitudes towards the subject.

By the time children leave our school, they will have a wide range of skills to equip them for their future. They will be equipped to tackle design and technology at high school and beyond with confidence and resilience. This will be evident in our children through:

- A growing awareness of design and technology in the works around us.
- The ability to talk confidently about how and why things work.
- An excitement about designing and making.
- The ability to use subject specific vocabulary to explain accurately how things work.
- An understanding of potential career options.
- A view of themselves as a designer.

#### **Feedback**

Feedback is given to pupils in order to further their learning and improve their thinking. Our regular, timely feedback has an impact on pupils' future performance and gives children the responsibility for improving their own work. Some of the ways in which pupils receive feedback:

- Live marking;
- Verbal comments and questions;
- The use of marking codes against written work;
- Up to three misspellings of age-related words and homophones are indicated by the teacher for children to correct;
- Next steps tasks to move the learning on, which pupils respond to;
- Peer and self-assessment are utilised.

## **Monitoring and Evaluation**

The Senior Leadership Team and Design and Technology Lead manage a programme of monitoring and evaluation of the teaching and learning in the school through:

- implementing of a monitoring cycle
- monitoring of planning
- Seesaw monitoring
- learning walks



Our design and technology curriculum is also regularly reviewed for effectiveness by class teachers to see if children have learnt what was intended. For example, if questioning showed that children had a misconception then they would modify the way in which that concept would be taught for the next cohort of children. This results in us constantly adapting to improve our curriculum to ensure it evolves and keep it ambitious.

## **Roles and Responsibilities**

#### **Governing Board**

The governing board will monitor the effectiveness of this policy and hold the headteacher to account for its implementation.

The governing board will also ensure that:

- A robust framework is in place for setting curriculum priorities and aspirational targets
- Enough teaching time is provided for pupils to cover the National Curriculum and other statutory requirements
- Proper provision is made for pupils with different abilities and needs, including children with special educational needs (SEN)
- It participates actively in decision-making about the breadth and balance of the curriculum

#### **Headteacher**

The headteacher is responsible for ensuring that this policy is adhered to, and that:

- All required elements of the curriculum, and those subjects which the school chooses to offer, have aims and objectives which reflect the aims of the school and indicate how the needs of individual pupils will be met
- The amount of time provided for teaching the required elements of the curriculum is adequate and is reviewed by the governing board
- The governing board is fully involved in decision-making processes that relate to the breadth and balance of the curriculum
- The governing board is advised on whole-school targets in order to make informed decisions
- Proper provision is in place for pupils with different abilities and needs, including children with SEN

#### Subject Lead

The design and technology lead is responsible for:



- Preparing and reviewing policy documents, curriculum overviews and progressions for the subject that supports the National Curriculum and Fulfen Primary School's curriculum intent.
- Ensuring the continuity and progression throughout year groups and that learning is progressive and ambitious.
- Keeping abreast of current thinking, research and policy changes which may impact design and technology.
- Helping colleagues develop their subject knowledge and expertise by assisting with planning and professional development where necessary.
- Monitoring the teaching and learning of design and technology.
- Carrying out audits of equipment and materials and purchasing addition supplies where necessary.

#### **Other Staff**

Other staff will ensure that the school curriculum is implemented in accordance with this policy.

## Scaffold and Challenge

All pupils will have equal access to the design and technology curriculum. Gender, learning ability, physical ability, ethnicity, linguistic ability, cultural circumstances will not affect pupils ability to succeed.

Teachers set high expectations for all pupils. They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- More able pupils
- Pupils with low prior attainment
- Pupils from disadvantaged backgrounds
- Pupils with SEN
- Pupils with English as an additional language (EAL)

Teachers will plan lessons so that pupils with SEN and/or disabilities are scaffolded in order that they can study design and technology wherever possible and ensure that there are no barriers to every pupil achieving.

Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in all subjects.



Further information can be found in our statement of equality information and objectives, and in our SEN policy and information report.

To ensure all children can succeed in design and technology, the teachers will aim:

- To provide breadth and balance of activities for all children;
- To provide a differentiated curriculum to meet the needs of all the children through the continuity of experiences;
- To set suitable learning challenges for individuals or small groups of children where necessary;
- To respond to pupils' diverse learning needs;
- To liaise with the SENCo to ensure that provision is made for all children with SEND;
- To relate activities for SEND children to their Personal Learning Plan targets;
- To overcome potential barriers to learning and assessment for individuals and groups of pupils;
- To provide scaffolding for pupils where necessary.

## Spoken Language

The national curriculum for design and technology reflects the importance of spoken language in pupil's development across the whole curriculum - cognitively, socially and linguistically. Teachers have high expectations of children to use discussion to further their learning. Children are expected to give precise explanations, using technical and specialist vocabulary appropriately. We achieve this at Fulfen by teachers modelling this practice, using the correct language within all learning. Teachers use and encourage children to use and understand age-appropriate vocabulary for design and technology from the beginning of nursery throughout the school.

## **British Values & Culture**

#### **British Values**

Our school reflects the British values in all that we do. We aim to support our children throughout their primary school journey so they can develop into safe and caring individuals who will become democratic, responsible and tolerant adults who will make a positive difference to the society they live in.

#### Culture & Diversity

At Fulfen Primary School, we recognise that there is a lack of diversity in certain design and technology fields. In each unit, when providing stimulus to inspire children, teachers are mindful of representing as many groups as possible to ensure that all children have equal representation.



## Links to other policies

This policy links to the following policies and procedures:

- EYFS Policy
- SEND Policy
- Equality Information and Objectives

## Legislation and Guidance

This policy reflects the requirements of the <u>National Curriculum programmes of study</u>, which all maintained schools in England must teach.

It also reflects requirements for inclusion and equality as set out in the <u>Special Educational</u> <u>Needs and Disability Code of Practice 2014</u> and <u>Equality Act 2010</u>, and refers to curriculumrelated expectations of governing boards set out in the Department for Education's <u>Governance Handbook</u>.

