# Walbottle Village Primary School

# Design and Technology Policy

October 2025

## Rationale

At Walbottle Village Primary School, we believe that 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 the 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 environment 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.

## School Vision

We aim to offer outstanding, exciting and stimulating learning experiences for all our children, regardless of race, gender or educational needs, across all areas of the curriculum. We strive to make learning appropriate and relevant and matched to the individual needs of our unique pupils.

## Definition of Design and Technology

Design and Technology can be defined as the purposeful use of inventive thinking and creative activity leading to the production of an object, system or an environment which best satisfies a perceived need. Design and Technology is part of every child's immediate experience and is a practical curriculum area that involves every child in meaningful activities, which allow pupils to design and to make. Children are encouraged to develop skills and knowledge of a wide range of materials and equipment through practical activities in a safe and controlled environment.

## School aims and objectives

The aims and objectives of Design and Technology at Walbottle Village Primary School are:

- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making.
- To enable children to talk about how things work, and to draw and model their ideas.
- To develop their capability to create high quality products through combining their designing and making skills with knowledge and understanding.
- To encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures.
- To use and explore a range of materials, resources and equipment.
- To explore attitudes towards the made worlds and how we live and work within it.
- To develop an understanding of technological processes, products and their manufacture, and their contribution to our society.
- To use the internet to explore ideas and already made products.
- To foster enjoyment, satisfaction and purpose in designing and making.

Links with other subjects

- Design and technology provides a natural opportunity for children to practise and improve basic skills such as speaking and listening, literacy and numeracy.
- Assignments aim to develop key skills such as creative problem solving, working with others and communication skills.
- Through evaluating the process and their final products children will be encouraged to improve their own learning and performance.
- Children will apply knowledge and skills from art and design, science, computing and literacy in design and technology.

Planning

The design and technology curriculum is taught following the National curriculum. We follow 'Projects on a Page' Long Term Plan which covers all areas of the curriculum progressively. Curriculum overviews on the website show how we cover objectives throughout the years.

**Key Stage 1**

| | | | |
|---|---|---|---|
| Y1 | **Mechanisms**<br>Sliders and levers<br>1_2 Sliders and levers.pdf | **Structures**<br>Freestanding structures<br>1_2 Freestanding structures.pdf | **Healthy Food**<br>Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)<br>1_2 Preparing fruit and vegetables.pdf |
| Y2 | **Mechanisms**<br>Wheels and axles<br>1_2 Wheels and axles.pdf | **Textiles**<br>Templates and joining techniques<br>1_2 Templates and joining.pdf | **Food and where it comes from**<br>Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)<br>1_2 Preparing fruit and vegetables.pdf |

**Key Stage 2**

| | | | |
|---|---|---|---|
| Y3/4 | **Structures**<br>Shell structures (including computer-aided design for Y4)<br>3_4 Shell structures using computer-aided design.pdf | **Textiles**<br>2-D shape to 3-D product<br>3_4 2D shape to 3D product.pdf | **Savoury Food**<br>Healthy and varied diet (including cooking and nutrition requirements for KS2)<br>3_4 Healthy and varied diet.pdf |
| Y4/Y5 | **Structures**<br>Frame structures<br>5_6 Frame structures.pdf | **Mechanical Systems**<br>Levers and linkages<br>3_4 Levers and linkages.pdf<br>Additional unit – GEM education – computer programing | **Electrical Systems**<br>Simple circuits and switches (including programming and control)<br>for Y5 - More complex switches and circuits (including programming, monitoring and control)<br>3_4 Simple circuits and switches.pdf<br>5_6 More complex switches.pdf |
| Y6 | **Textiles**<br>Combining different fabric shapes (including computer-aided design) 5_6 Using computer-aided design in textiles.pdf | **Mechanical Systems**<br>Pulleys or gears<br>5_6 Pulleys or gears.pdf | **Food**<br>Celebrating culture and seasonality(including cooking and nutrition requirements for KS2)<br>5_6 Celebrating culture and seasonality.pdf |

Assessment

Children are assessed through each project they undertake. Children are assessed against the age appropriate requirements of the curriculum through targeted questioning and observation of their design work. Information about which pupils are working below, at or above the expected standard is captured on an overview document of their project along with the skills that need to be revisited later in the year or by the next teacher. See an example below:

**Learning objectives (highlight those met):**

**Prior learning:**

- **Experience of basic stitching, joining textiles and finishing techniques.**
- **Experience of making and using simple pattern pieces.**

**Designing:**

- Generate innovative ideas by carrying out research including surveys, interviews and questionnaires.
- Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer-aided design.
- Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification.

**Making:**

- Produce detailed lists of equipment and fabrics relevant to their tasks.
- Formulate step-by-step plans and, if appropriate, allocate tasks within a team.
- Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost.

**Evaluating:**

- Investigate and analyse textile products linked to their final product.
- Compare the final product to the original design specification.
- Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.
- Consider the views of others to improve their work.

**Technical knowledge and understanding:**

- A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.
- Fabrics can be strengthened, stiffened and reinforced where appropriate.

Highly quality resources

We believe here at Walbottle Village Primary School that all our children should be inspired by a range of high quality resources and that they are given the opportunity to excel in design and technology. This includes highly effective teachers who pass on their skills in the subject. They can spot potential and nurture talents. We ensure that our curriculum is enriched with skilled visitors in and technology. We ensure our children are given the chance to work with outside agencies.

Additionally, each class has access to quality resources. As we work with the children's interests, teachers complete orders for resources before the term starts so that we can use our budget effectively.

The internet, Ipads, Laptops and smart boards are used to research and evaluate existing products. Children have access to these across all areas of learning.

Health and safety

A safe working environment and ways of working need to be encouraged from the earliest stage and safe practices should be understood by all members of staff.

All areas must be in the direct vision of the teacher and there should be enough space for each child and group to work comfortably.

Teachers should be aware of physical limitations which a pupil may suffer eg poor eyesight or hearing, and make suitable arrangements to allow the pupil to operate sensibly.

Working with food

Cooking utensils and work areas should be kept meticulously clean. Children should learn simple personal hygiene rules such as wearing a clean apron, washing hands before handling food and not eating food as they are cooking.

Tools

Tools which present hazard, such as a glue gun or a craft knife, need to be secured away from general tools. Children must be trained to use tools effectively and supervised appropriately.

Professional development

To nurture and develop artistic talent, we must ensure staff, support staff, parents and the wider community can influence our young people in design and technology. Therefore we provide opportunities for professional development through the means of training, team teaching, lesson observations and working with skilled people in design and technology. We collaborate with Beech Hill Primary School.

Monitoring and evaluating

It is essential that we monitor and evaluate our design and technology provision. Each year we set aims and objectives in a school development plan that is successful in developing our progress in design and technology. The design and technology coordinator will work throughout the year to meet these aims and targets with colleagues.

We review different clubs to ensure we are offering after school provision that the children are interested in. Additionally, we seek to offer new and innovative ideas that we hope will spark potential interest within our children.

Visits

Where possible the coordinator will arrange for experts within a given field to deliver curriculum opportunities throughout the school.

Parental involvement

Parents are informed about design and technology events through school newsletters from the head teacher and letters home from the class teachers or curriculum coordinator.

Equal opportunities

Knowledge, skills and understanding needs to be taught in ways that suit pupil's abilities, to include pupils with special needs and to be challenging for the most able.

SEN

The delivery of the curriculum should be differentiated, through a range of learning styles, opportunities and activities to assist children's learning. Every child, whatever their ability, should be given opportunities to develop their own creativity and imagination.

Tasks can be broken down into small steps, giving children achievable goals. Activities should reinforce children's understanding of the subject. The more able children should be given open-ended tasks and the opportunities for further research or a more challenging technique.

Gifted and talented

Gifted and talented children should be identified via pupil tracking grids and provided opportunities, within the curriculum, to promote and develop their learning.

Sam Peverall (Design and technology coordinator 2025)