Review Date:- July 2024

Design Technology policy

"Children at the heart. Transforming futures at the core."

"Design and Technology education helps develop children's skills through collaborative working and problem-solving, and knowledge in design, materials, structures, mechanisms and electrical control. They are encouraged to be creative and innovative, and are actively encouraged to think about important issues such as sustainability and enterprise."

D&T Association

"I really enjoy this subject because I can make my own models with my ideas"

Key Stage 2 Pupil – July 2018

We intend to deliver an engaging Design Technology curriculum which allows children to be confident to critique their own work as a design technician because they know how to be successful.
We encourage children to think creatively and critically to solve problems both as individuals and as members of a team.

More Able Learners in Design Technology

HOW LEARNERS ARE CHALLENGED

All children are challenged through quality first teaching within every Design Technology lesson.
Children will be encouraged to 'aim high' and be the best they can be.
High expectations will nurture the higher order vocabulary and the most effective language structures.
Children will be exposed to a range of Design Technology resources and will be challenged through higher order questioning.
Groups of children are given additional challenges such as a yearly STEM challenge where the children take part in different activities.

Aims of the Design Technology Curriculum

March 2023 – Healthy eating focus

Forest school sessions 2022 - 2023

What we intend to do

At Brabin's we intend to deliver a practical and rigorous Design Technology curriculum which inspires children to explore their own creative development and imagination.
Our curriculum demonstrates a progression of knowledge and skills of which supports pupils in becoming confident design technicians.
As a school we want children to enjoy and love learning about this subject by gaining knowledge and skills, but also giving the children real life experiences for example cooking for a purpose.
Our units of learning are developed with the National Curriculum objectives for Design Technology, however they have been planned around the needs of our children, experiences and resources.

There are four aspects of our Design Technology curriculum including designing, making, evaluating and technical knowledge.
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 work in a range of relevant context.
Key skills and knowledge for Design Technology have been mapped across the school to ensure progression between year groups. This ensures that there is a context for the children's work in Design and Technology; that they learn about real life structures and the purpose of specific examples, as well as developing their skills throughout the program of study.

Non-Negotiables in Design Technology

- Respecting our equipment and using it appropriately and safely.
- Respect others views and opinions.

All children will access…

- ✓ A rich and broad curriculum.
- ✓ Access up to date resources.
- ✓ Yearly STEM challenges.
- ✓ A wide range of hands on experiences including cooking, textiles and structures using a range of equipment.
- ✓ Forest school activities.
- ✓ A range of different tools and cooking equipment.
- ✓ Enrichment opportunities.
- ✓ Extra-curricular clubs.

Extra-curricular clubs and enrichment

February 2023

EYFS – learning all about Pancake day and making their own linked to their Food topic.

Design Technology displays

June 2021
Year 5 and - DT project
3D models of Anglo-Saxon village

Whole school Engineering day – January 2022
Visit from an Engineer

Forest School Day January 2020

Using a range of tools

Fire lighting

Supporting Learners in Design Technology

Learning in Design Technology is carefully planned to include all learners. We ensure all pupils have access to the full range of activities involved in Design Technology.
A range of interventions are also deployed to help close gaps or attend to individual needs. These may be delivered by the class teacher or teaching assistant within or outside the lesson.
If progress falls significantly outside the expected range, the child may have special educational needs. Where needed a child may have an individual support plan to target specific needs.
This may include additional support from a teaching assistant or a tailored learning intervention. Learning maybe differentiated by outcome, task or resources.

PARENTAL INVOLVEMENT

Children have taken part in an Enterprise club where they made various Christmas crafts such as tree decorations and cards. These products were then sold at a local Christmasfair; children took turns to help run the stall with staff members. Parents had the opportunity look at and buy crafts the children have made.

Examples of children's work in Design technology is regularly added to each class page on our school website where parents can look at with their children.

Implementation

What Design Technology will look like

The teaching of Design Technology has so many practical and hands on opportunities. Our curriculum delivers a balanced coverage of designing, making, evaluating and technical knowledge The children will experience of all four aspects in each year group, the subject knowledge will become more specific and in depth, with more complex skills being taught as the children progress through school. This ensures that children's knowledge is built on and confidence is developed.

Through a variety of creative and practical activities, we teach knowledge, understanding and skills needed to engage in an iterative process of designing and making. The children will work in a range of relevant contexts such as school, home and the wider environment to make different products. Learners will develop a range of technical knowledge and vocabulary in relation to the four key areas of Design Technology.

A key part of Design Technology is to develop designing and making skills through using a range of tools, materials, equipment and components safely. Staff always teach the safe use of tools and equipment. Craft knives are only to be used by adults in the Design Technology lesson. Cool glue guns, saws and drills are available for use by key stage 2 children.

This practical subject provides opportunities for all children to design and make good quality products in their units of work including structures and textiles. They will understand and apply the principles of nutrition, where different types of food comes from and learn how to cook different foods.

Design Technology Curriculum Overview 2 year cycle

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1 & 2 Cycle A			*Mechanisms* *Wheels and axles*		*Food – The Eatwell Plate* *-Where food comes from*	*Structures*
Year 1 & 2 Cycle B		*Mechanisms* *Design a moving picture using simple levers*		*Textiles* *Design and make a finger/hand puppet*	*Food Technology* *Following a recipe*	
Year 3 & 4 Cycle A		*Textiles- Seams, stiffening and strengthening, materials and fastenings*	*ICT and electrical systems-control and electrical components (motors/buzzers)*			*Food - Simple savoury foods and cooking techniques*
Year 3 & 4 Cycle B			*Food Product for a purpose* *Eatwell plate*		Structures Making structures for support	Mechanical Systems- Levers and Linkages
Year 5 & 6 Cycle A			*Electrical Systems and Structures* Woodwork		Textiles Make do and mend	Cooking: healthy eating
Year 5 & 6 Cycle B	*Mechanical systems* *cams, pulleys and gears* Space	*Cooking:* *Linked to other cultures*		*Structures* *Making shelters (reinforcing/strengthening)*		

Subject Organisation and Implementation at Brabin's

At Brabin's we implement a curriculum that is progressive throughout the whole school. Design Technology is taught as a discrete subject usually every other half term, focusing on knowledge and skills stated in the National Curriculum. Units of work are carefully planned as a whole staff to ensure progression and a wide range of experiences can be accessed. Due to our mixed age setting, the scheme of work runs on a two year cycle.

Key skills and knowledge for this subject have been mapped across the school to ensure progression between year groups.

This provides a context for the children to learn about real life as well as developing their skills

During a unit of work, there can be cross-curricular links where appropriate, this enhances their subject knowledge and learning experiences. Throughout units of work there will be lots of opportunities for the children to design and make a range of products, sketch, develop and communicate their ideas, draw plans, evaluate and reflect on designs.

KS1 - Cookery club

Professional Development in Design Technology

At Brabin's, we intend to keep the subject of Design Technology rigorous and alive so it is reflective of pedagogical research and is ambitious in its aims. To do this, we invest in Continued Professional Development in this subject for all our staff.
The school has a membership for the Design Technology association which all staff members have access to, this has a wide range of resources, articles, magazines and ideas for units of work. The subject leader attends courses when this appropriate and this is fed back to ensure all staff members are up to date.
Opportunities for professional engagement with cluster colleagues are highly valued, where appropriate, this can include class teachers taking part in moderation and training events. Training for staff is provided regularly, through our weekly staff meetings and a focus on a different subject each week to ensure each subject has a presence. As small team of teachers, close communication is a key strength and teachers regularly share good practice with one and other.

Examples of Spiritual, Moral, Social & Cultural Development in Design Technology

Spiritual	Moral	Social	Cultural
Design Technology allows pupils the opportunity to exercise imagination, inspiration, intuition and insight through creativity and risk taking in analysing, designing and manufacturing a range of products. It instils a sense of awe, wonder and mystery when studying the natural world or human achievement. Encouraging creativity allows pupils to express innermost thoughts and feelings and to reflect and learn from reflection, for example, asking 'why?', 'how?' and 'where?'.	Design Technology gives pupils an awareness of the moral dilemmas created by technologic advances, for example, the effect advanced manufacturing automation has had on employment and how globalisation has caused poverty and inequality in eastern Asia. It encourages pupils to value the environment and its natural resources and to consider the environmental impact of everyday products. It educates pupils to become responsible consumers.	Design Technology provides positive corporate experiences – for example, through industrial visits. It gives opportunities to work as a team, recognising others' strengths and sharing equipment. Design Technology promotes equality of opportunity and provides an awareness of areas that have gender issues e.g. encouraging girls to use equipment that has been traditionally male dominated.	Design Technology reflects on ingenious products and inventions, the diversity of materials and ways in which design technology can improve the quality of life. It investigates how different cultures have contributed to technology and reflects on products and inventions, the diversity of materials and ways in which design can improve the quality of our lives.

WELLBEING AND MENTAL HEALTH

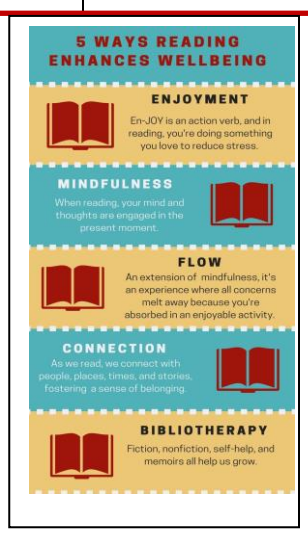
At Brabin's, we recognise the research which shows how a whole school approach can promote wellbeing and positive mental health.

This Government report from 2018 states the importance for creating a whole school culture
The culture, ethos and environment of the school can have a profound influence on both pupil and staff mental wellbeing.
A whole school approach is one that goes beyond the teaching in the classroom to pervade all aspects of school life, including:

partnerships with families and the community: proactive engagement with families, outside agencies, and the wider community to promote consistent support for children's health and wellbeing.

teaching: using the curriculum to develop pupils' knowledge about health and wellbeing.

culture, ethos and environment: the health and wellbeing of pupils and staff is promoted through the 'hidden' or 'informal' curriculum, including leadership practice, the school's policies, values and attitudes, together with the social and physical environment;



https://www.gov.uk/government/publications/mental-health-and-behaviour-in-schools--2 document

CULTURAL CAPITAL

Design Technology presents good opportunities for 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.

DEVELOPING BRITISH VALUES WITHIN THE DESIGN TECHNOLOGUY CURRICULUM

We have ensured that our curriculum and enrichment opportunities reflect the rich tapestry of our society through different methods, such as communication; speaking, designing, drawing, assembling, making, writing and using computer technology
Children at Brabin's will demonstrate the following values by:
*Collaborative work in design and technology develops mutual respect for the differing opinions, beliefs and abilities of others.
*Respect for their own health and safety and that of others.
*Appreciate that all people – and their views.

DESIGN TECHNOLOGY IN THE EARLY YEARS

In EYFS children will have the opportunity to experience a range of creative opportunities and to develop key skills and techniques within the curriculum.
There will be a focus on developing fine motor skills and learning how to plan, design and produce the finished project. Children will have opportunities to learn simple cutting and joining techniques and use these techniques in model making and explore through construction kits. They will gain an understanding about food, following a recipe and will take part in cooking a range of different foods such as pizza or pancakes and then evaluating them. the children will be, where appropriate, included in whole school projects, workshops, events and competitions associated with Design and Technology.

Developing the following skills:

- Progress towards a more fluent style of moving with developing control and grace. Develop their small motor skills so that they can use a range of tools safely and competently.
- Explore and refine a variety of artistic effects to express their ideas and feelings. Return to and build on previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and ideas.

Expressive arts and Design Exploring and using media and materials ELG

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- Share their creations, explaining the process they have used.

Physical development – Fine motor control – ELG

- Use a range of tools, including scissors, paint brushes and cutlery.

ASSESSMENT

All children are encouraged to be involved in the process of learning.
In lessons, across the school, teachers will strive to provide instant oral feedback. When appropriate, the children have the opportunity to respond to written marking and complete 'fix it's' in red pen in line with our whole school marking policy. .
Children will add learning they are proud of to their Learning Tapestries during the year. They will take this home when they leave school.
Pupil progress data is shared with the Subject Leader on a half termly basis. More formal assessments, Pupil Progress meetings and moderation takes place each term.
In the EYFS, formative assessments are carried out on a daily basis. This type of assessment informs planning, the children's next steps and demonstrates progress. Summative assessments are completed at the end of each phonic phase, this provides a good understanding of what the children have learnt and any areas that need to be reinforced.
At the end of EYFS, the teacher completes an end of year report and makes a judgment for each of the 17 Early Learning Goals.

MONITORING

Monitoring is undertaken by the Headteacher/Subject Leader. This is conducted regularly and includes: -

- Monitoring of planning
- Learning Environment Walkthroughs
- Pupil voice
- Data analysis
- Lesson Observation

Information will be shared with all governors through the Curriculum Committee, the Headteacher Report to Governors.

IMPACT

When children leave Brabin's they will have learnt how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they will have developed 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 and well-being of the nation. We strive to ensure that the children have experienced opportunities to be creative, technical and develop practical expertise needed to perform everyday tasks confidently and to participate successfully.