Holy Trinity Church of England Primary School

To be the best we can be: for God, for others and for ourselves

Design & Technology Policy

Policy to be reviewed as necessary within 3 years

Agreed by Governors
Spring 2021

Due for Review
Spring 2024

Subject leader: P Shacklady

Vision

At Holy Trinity Church of England Primary School, every child is recognised as a unique individual. We celebrate and welcome differences within our diverse school community, encouraging all to grow and flourish as precious children of God. Learning is centred around experiencing the joy of discovery. The ability to learn is underpinned by the teaching of basic skills, knowledge, concepts and values, with a vision to prepare our children to be life-long learners, rooted in our school motto: To be the best we can be: For God, for others and for ourselves.

Christian Values						
Love	**Hope**	**Forgiveness**	**Trust**	**Peace**	**Reverence**	**Justice**

Purpose and Aims of Design and Technology

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.

Organisation of Teaching

The Design and Technology curriculum is carefully and coherently sequenced to enable our children to develop a growing knowledge of the themes outlined above. Pupils' knowledge builds towards clearly defined end points so teachers and leaders know what we expect our pupils to achieve by the end of each topic, each year and each key stage. To meet the educational needs of our school community we have selected the following core knowledge concepts as a focus for our teaching. These are explored in increasing depth as pupils move through the school.

In Reception Design and Technology is taught as part of the Exploring and Using materials within the Early Years Foundation Stage Curriculum. Further information on how the Early Years Curriculum is organised ca be found on our Early Years Policy.

Across KS1 and KS2 all children will be taught and develop skills on the following Design and Technology concepts:

- Food (every year group will complete a food technology unit)
- Materials
- Structures
- Wheels and Axis
- Mechanisms
- Electricity

In Years 1 to 6 D&T is taught as a discrete subject, though meaningful links are made with other subjects in our curriculum, each knowledge organiser shows where there are links to the English through a related text. The topics we teach are outlined in the curriculum map for Science (see Appendix 1). This is published on our website.

Knowledge Organisers

Every topic has a knowledge organiser. This outlines the core knowledge taught within the topic, how many hours of teaching time allocated to the topic and the key vocabulary pupils are expected to understand and use. Additionally, the Knowledge Organisers contain the five key stages for a successful D&T unit with explanations of the evaluation of existing products, focused tasks, design stage, make phase, evaluation and the health and safety aspects. The Knowledge Organiser will be kept in the Design Technology Scrapbook for the children to access. Knowledge organisers may also be taken home to support learning. All knowledge organisers can be seen on the relevant class pages of our website.

Teaching Time

Design and Technology is allocated the following time on our weekly timetables. Timetables are published on our website every half term. Each class will complete three D&T units a year with one unit taking a half term to complete.

The Teaching of Design and Technology (Implementation)

Teachers use a range of teaching strategies that best support the objectives of the lesson. The following list shows the most common methods of effective teaching related to Design and Technology

- teacher instruction, explanation and modelling using resources such as the interactive whiteboard, online programmes and texts
- use of quality text books and other sources of information, including books in our school library
- pupil discussion, investigation and problem solving
- regular review of previous learning or linked topics to enable pupils to remember key concepts. This may involve quizzes or other games to help embed knowledge and vocabulary
- analysing information, making and testing out predictions

Resources

Teachers use the following schemes of work to support the teaching of Design and Technology

- *Design & Technology Association*

Curriculum resources such *as glue, materials, wood and drills* are stored in the Design & Technology store room.

Recording Learning

In Design and Technology, pupils record their learning in the following ways:

- exercise books for Upper Key Stage 2.
- class floor books or scrapbooks.

Meeting The Needs of All Pupils

All pupils are entitled to a broad and balanced curriculum that meets their needs. Design and Technology is taught in class groups with all pupils included. All our teachers know the pupils in their class and their differing needs very well. They plan and adapt lessons to help all pupils know and remember more so they make very good progress.

Some pupils, including those with special educational needs or disabilities, or those with English an as additional language, may need extra support to access, understand and remember key concepts. For these pupils, teachers use a range of effective strategies, whilst promoting independent learning as far as possible. These may include:

- adapting and scaffolding pupil activities and resources
- focussed additional support from an adult in class

Some pupils very quickly grasp the main concepts being taught and are able to think more deeply to extend their learning. To ensure they reach their full potential, teachers may:

- set more complex activities that require thinking at greater depth
- ask pupils to apply their knowledge to a different situation
- go further by asking them to explain their thinking to others or present their findings to a group

Homework

Homework is not usually given in Design and Technology but children are encouraged to take an interest in the food they eat in and out of school. They are encouraged to think about where is comes from and how it might be made as well as the nutritional health behind what we eat.

High Quality Teaching and Subject Knowledge

To ensure the highest quality teaching and make sure teachers have the subject knowledge they need to meet the requirements of teaching Design and Technology in their class, teachers (and teaching assistants) receive a range of guidance and support, including:

- face to face and online training
- latest research and guidance in the best ways of teaching Design and Technology
- mutual support and discussion with colleagues, including joint planning, team teaching and paired marking

In addition, the subject leader for Design and Technology stays up to date with developments in the subject through leadership training, affiliation Design and Technology Association and support from other subject leaders locally and within the LDST.

Assessment (Evaluating The Impact of Teaching)

Teachers constantly assess how far their pupils understand the key concepts they are teaching throughout lessons, mainly through questioning and observation. Quizzes and other games are regularly used to assess how far pupils have remembered learning from the lessons before. Teachers then adapt their teaching to ensure misconceptions or gaps in knowledge are addressed. In addition, they may need to introduce opportunities for more challenge or deeper thinking.

End of Unit Assessments

At the end of every topic teachers assess how far each pupil has understood the knowledge and skills involved. Pupils are assessed overall as either working towards the topic's objectives, meeting the topic's objectives or meeting the topic's objectives at greater depth. This is recorded in the following way:

- Highlighting and dating objectives, which is kept at the front of the child's book or scrapbook.

End of Term Assessments

At the end of every term, teachers evaluate the achievement of each child in their class in Design and Technology. They record this on a school data base. This helps teachers plan and adapt future lessons. The subject leader collates and analyses assessment data across the school. They pick out trends, strengths and weaknesses across the school and for different classes and groups. This information is shared with senior leaders and governors. All subjects have an action plan and a budget. Analysing pupil achievement helps the subject leader plan for improvements in the subject. This may take the form of targeted training, staff discussion and problem solving to improve an aspect of the curriculum. If analysis shows a particular group of children are underachieving, for example disadvantaged children, further measures are agreed and put in place to address this gap.

End of Year Assessments and Reporting To Parents

End of term assessments are pulled together at the end of each academic year to evaluate each pupils' overall attainment in Design and Technology. A child's attainment in Design and Technology is reported to parents through the end of year reports. For pupils in Y1 to Y6 a child's attainment is reported in the following way.

- wts working towards end of year expectations
- exs meeting end of year expectations
- gds meeting end of year expectations at greater depth.

In Reception class Design and Technology comes under the *Exploring and Using Materials* area of learning. Each child in Reception is assessed as emerging, expected or exceeding the early learning goals in that area.

An INSET day is allocated towards the beginning of July where class teachers 'handover' their class to the next teacher. They discuss pupil achievement across the curriculum and ways future teaching should be adapted to meet the differing needs of the class.

Monitoring and Evaluation

The subject leader for Design and Technology monitors teaching and learning regularly in accordance with the school's monitoring timetable. At set times during the year the subject leader evaluates the quality of teaching in Design and Technology through:

- learning walks and drop ins, usually with a member of the senior leadership team, and sometimes with a governor.
- book looks. The subject leader looks at a range of books or other evidence across the school, sometimes with senior leaders or an adviser / officer from the LDST or a governor.
- scrutiny of planning, particularly to evaluate coverage and progression within the curriculum as well as the extent to which planning is catering for the range of needs of pupils
- pupil conferencing
- surveys for pupils and/ or staff
- more formal lesson observations (with a member of the senior leadership team).

Subject leaders have regular support meetings with the senior leadership team where aspects of the subject policy and action plan are monitored and discussed. Resulting actions may emerge with additional leadership support, resources or policy changes implemented. Subject leaders routinely have a teacher appraisal objective linked to an aspect of their subject leadership.

Following all these activities, strengths and areas for development are reported and discussed with staff. Resulting actions are recorded on the subject action plan and reported to governors. At the end of each year the action plan for Design and Technology is fully evaluated and published. In addition, the subject leader evaluates how far Design and Technology is meeting our curriculum intent statement. This evaluation feeds into the action plan for the following year. Evaluated action plans and evaluations are reported to the senior leadership team and governors.

Role of Governors (from September 2020)

Every aspect within the school improvement plan has an allocated pair or small group of governors. This pair of governors evaluates the activities within this aspect and the impact on the quality of education and pupil outcomes. They meet with subject leaders on a termly basis and review aspects of the subject, including seeing lessons in practice and talking to children. Their findings are reported to the Local Governing Board. In this way, leaders are held accountable for the aspects they are responsible for and subject leaders are able to access the appropriate support and resources to achieve their aims.

Appendix 1: Curriculum Map for Design and Technology

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	Healthy foods		Making a boat Gingerbread Men Structures		Making Guitars	
Year 1	Moving Pictures – Mechanisms		Fruit Kebabs – Food		The three bears' chairs - Structures	
Year 2	Puppets – materials/sewing		Super Salads – Food		Fire Engines – wheels and axis	
Year 3		Healthy Sandwiches – Food		Photo frames – Structures		Bendy bags – Materials
Year 4	Desk tidy – Structures		Night light – electrics		Baking bread – Food	
Year 5		Bird Hides – Structures		Seasonal soups – Food		Levers and linkage – Mechanisms
Year 6	Designing for everyone – structures		Pizza – food		Car alarms – Electrics	