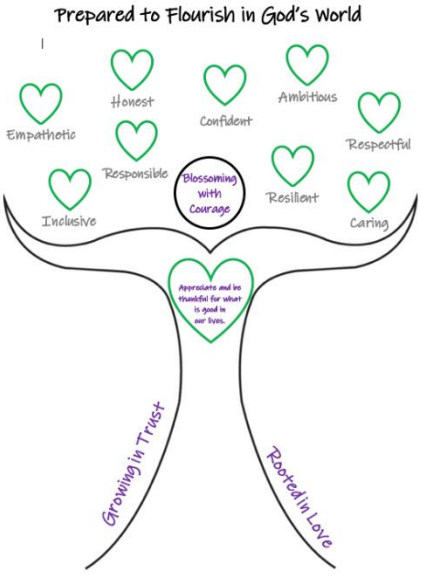
# Intent, implementation, and impact Statement: Design and Technology at Burford CofE Primary School

At Burford, we are 'Rooted in love, growing in trust and blossoming with courage, prepared to flourish in God's world.'




The importance of understanding that each of us is rooted in love is not under-estimated at Burford:

*'Love always trusts, always hopes, always perseveres.'*
Corinthians 13:7

Trusting in love gives us the courage to be ourselves. Courage is from the Latin 'coeur' which means 'To tell the story of who you are with your whole heart'. Our intention is for our pupils to leave Burford prepared for 'Life in all its fullness' and ready to tell their own stories.

Our Christian vision has driven us to create a bespoke curriculum for our pupils that pursues the acquisition of wisdom, knowledge and skills alongside educating for aspiration, dignity, and respect. It is also our intention to nurture a sense of community, so that all members of our school develop a deep sense of belonging, both locally and within the wider world. We believe that these attributes will support our pupils to live well together and flourish, as they move on to High School and beyond.

Our curriculum offer is therefore divided into three focus areas: 'Head, Heart and Hands':

**Head** – **Rigorous academic study.** Enabling pupils to learn more and remember more, creating a change in long-term memory.
**Heart** – **Living wholeheartedly.** Choosing our own path, free from stereotyping; being curious, aspirational, confident and resilient.
**Hands** – **Courageous advocacy.** Developing a greater awareness of the challenge's others face in life and how we can make a difference in our school community, local community and further afield.

At Burford CofE Primary School, we believe that a carefully sequenced curriculum can empower our pupils and reduce social inequality, whilst providing the knowledge they need for the next stage of their education. We view our curriculum as a progression model: the mapped-out journey of concept building leading to a change in long term memory and an increase in knowledge. Through interleaving concepts throughout the curriculum, the children will develop a deep and rich understanding, meaning that the knowledge that is acquired is more likely to be remembered.

Our curriculum sets out WHAT will be learned and WHEN it will be learned.

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**CURRICULUM INTENT**

Our curriculum sets out: the significant and key knowledge that pupils should know and remember as well as the skills that the children will develop and build on; the key concepts that children will return to in different contexts and year groups; the prior learning that the children can build on; the vocabulary that will be introduced as well as the sequencing and progression of the units to be taught.

## The importance of D&T at Burford School

Design and technology is an inspiring, rigorous and practical subject. It encourages children to learn, to think and to intervene creatively to solve problems both as individuals and as members of a team.
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.

## What D&T looks like in our school:

Our high-quality scheme of work encourages children to look at, evaluate and adapt existing products and systems, working creatively to design their own that solve real and relevant problems within a variety of contexts (for example home, school, leisure, culture, enterprise, industry and the wider environment). Children are introduced to great inventors and designers from around the world who inspire and encourage the children to become innovators and risk-takers. The delivery of our Design and Technology curriculum, along with our whole school values of Love, Trust and Courage, enable our children to develop their skills, understanding and ability. Above all, we want our children to enjoy their Design and Technology lessons and embrace the opportunities they are presented with, without fear of failure or judgement from others!

## Our philosophy:

At Burford CE Primary School we believe design and technology should be fully inclusive to every child. Our progressive scheme of work develops children's skills and knowledge in design, structures, mechanisms, electrical control and a range of materials, including food. We aim to, whenever possible, make cross-curricular

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links to Maths, English and Science and other compulsory subjects on the curriculum, in a fun manner, putting these subjects into context, making them easier to digest and more understandable.

**By the end of EYFS pupils will:**

- represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.
- safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and materials in original ways, thinking about uses and purposes.

**By the end of Key Stage 1 pupils will:**

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- select from and use a range of tools, equipment and materials to perform practical tasks
- explore and evaluate a range of existing products and their own designs
- develop their technical knowledge - build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms in their products.
- use the basic principles of a healthy and varied diet to prepare dishes and understand where food comes from.

**By the end of KS2 pupils will:**

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose
- generate, develop, model and communicate their ideas
- select from and use a wider range of tools, equipment, materials and components to perform practical tasks
- investigate and analyse a range of existing products
- evaluate existing products and their own designs and understand how key events and individuals in design and technology have helped shape the world
- build on their existing technical knowledge including applying their understanding of how to strengthen, stiffen and reinforce more complex structures using mechanical systems and electrical systems and applying their understanding of computing to program, monitor and control their products
- understand and apply the principles of a healthy and varied diet prepare and cook a variety of dishes understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.

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**CURRICULUM IMPLEMENTATION**

Our curriculum is ambitious for all pupils, regardless of their starting point. We aim for our classrooms to be places of 'high demand – low threat'. We provide support through modelling, paired talk, scaffolding and worked examples rather than highly differentiated activities or sheets. We aim to offer all children the opportunity for stretch and extension, through offering challenging tasks that build on the core learning.

Opportunities to use high quality texts are identified in all curriculum areas. Reading is not only an important skill in its own right but can expose children to new vocabulary as well as provide a richer understanding of a topic which can underpin their new knowledge.

New vocabulary is prioritised frequently and is recorded on our working walls in order to support pupils to become familiar with it and use it in their own work and talk.

We support pupils to know more and remember more through offering frequent opportunities for retrieval practice.

## How does it work in D&T?

- We use the Kapow Design Technology scheme enabling teachers to develop their knowledge, understanding and skills when teaching Design Technology.
- Class teachers have organised their own curriculum for this subject using the topic/themed KAPOW units to create long-term curriculum maps across a 2-year rolling program.
- Design Technology units are taught discretely, but meaningful cross curricular links are made across subjects when and wherever possible.
- Prior knowledge links to new learning deepens children's knowledge, understanding and skills and promotes a broad and balanced curriculum.
- A progression document is used to ensure that previous knowledge and skills are built on.
- By the time the children leave Year 6, they will have explored and discussed a range of different designers and their work, focusing on the techniques used or the features designers incorporated in their inventions or products.
- The children will then have a chance to recreate and reimagine these into their own designs.
- All children will be given a chance to work on a range of different collaborative design projects and have their work showcased across the school and in the local community.

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- Workshops or Design and Technology days relevant to specific topics may be used to immerse children in the design experience.

## What do adults do to enable children to flourish in D&T?

- Plan inspiring, progressive lessons which work on developing or acquiring design skills and techniques.
- Create a positive learning environment where children feel comfortable discussing and sharing their own and others work and suggesting positive feedback and ways to improve.
- Regularly monitor books, listen to pupil feedback and audit planning.
- Raise the profile of Design Technology within the school, using displays, design and technology days and running extra-curricular design technology clubs.

## How do we help children who need additional support?

- Work might be scaffolded so that all children are able to meet the learning objective in activities suitable to their own individual needs.
- Offering a range of equipment and resources so that all children can make progress during a lesson, e.g. use of templates or guides, different tools etc.
- Small group/1:1 adult support given where required.
- We use teacher and self-assessment to quickly identify any child who requires additional support developing specific skills and techniques. These pupils will then receive additional support or resources to use in order for them to successfully meet the learning objective.

## How do we challenge children in D&T?

- Additional activities stretch the learning within the lesson and further develop certain skills or techniques.

## How do we ensure all children can access the D&T curriculum?

- Children who have SEN or EAL needs are introduced to specific subject relevant language prior to the lesson.
- Seating children alongside good role models to support one another or working in groups to enable children to discuss their design choices.
- By providing equipment and resources relevant to each individual child, e.g. templates, relevant vocabulary necessary for writing up design choices, writing frames.

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**CURRICULUM IMPACT**

The impact of children's progress and their ability to know more and remember more will be visible through a range of methods. These may include end of unit assessments or quizzes, hot and cold tasks, spoken responses, progress over time in pupils' books, extended writing or even an end of unit project.

## What will you see in D&T

- Lessons structured with a ten minute 'Attention Grabber' and thirty minute 'Main Event' and a ten minute 'Wrapping Up'
- Happy and engaged learners.
- Children posing questions about designs that they wish to research.
- A range of different activities including practical lessons, research lessons, showcase of inventions and evaluations of designs.
- Children able to self-reflect on their designs and the making process, finding both areas of success and evaluating areas of possible improvement.
- Displays around the school and showcases of children's designs.
- Confident children who are willing to persevere with skills and techniques they are developing

## How do we know how well our pupils are doing in D&T?

- The assessment milestones have been broken down for each year group, ensuring the skills in Design Technology are progressive and build year on year.
- 'Knowledge catcher' quizzes assess prior knowledge of all pupils. This assessment informs differentiation, support and challenge required by the children. The quiz is then repeated once the unit teaching sequence has been completed.
- Summative assessment informs the subject leader of progress or skills and knowledge still to be embedded.
- A comprehensive monitoring cycle is developed at the beginning of each academic year. This identifies when monitoring is undertaken. Monitoring in Design Technology includes topic/sketch book scrutiny, lesson observations and/or learning walks, and pupil/staff/parent voice interviews conducted by the Design Technology Subject lead.

## What do we do with the assessment data we collect?

- Data is used to inform and further develop the Design Technology Curriculum and its impact on pupil attainment and progression

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## How do we know that our children are flourishing in D&T?

- Marking and feedback by teacher and peers.
- Monitoring of progress.
- Photographic evidence included in children's Design and Technology books.
- Displays of work in classes.
- Book scrutiny, pupil voice and planning audits.
- Targeting both Teacher and Learning Assistant support during lessons to ensure progress of all children.

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**CULTURAL CAPITAL**

## What is Cultural Capital?

The National Curriculum defines cultural capital as: 'the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement'. This powerful knowledge can be split into two categories: powerful subject knowledge and powerful personal knowledge.

## Powerful Subject Knowledge in D&T

- The children have many opportunities to experience design and technology on educational visits, to help enhance the learning experience and improve the potential for our children to retain what they have been taught, creating long-term memories.
- The children have visited local museum/exhibitions, food establishments and had visitors into school to share learning, expertise and have hands on experiences.

## Powerful Personal Knowledge in D&T

- Every year, our Year 5 and 6 pupils set up a pop up café at our local village hall, where they plan and create a variety of healthy and nutritious meals and snacks. These are then sold to the other school pupils, staff members, parents and members of the local area as they visit their 'café' in term throughout the day.
- In recent years, teachers have linked with local high schools to use their facilities, technology and expertise. At Burford, teachers make use of the extensive grounds and outdoor learning area when planning for their students.

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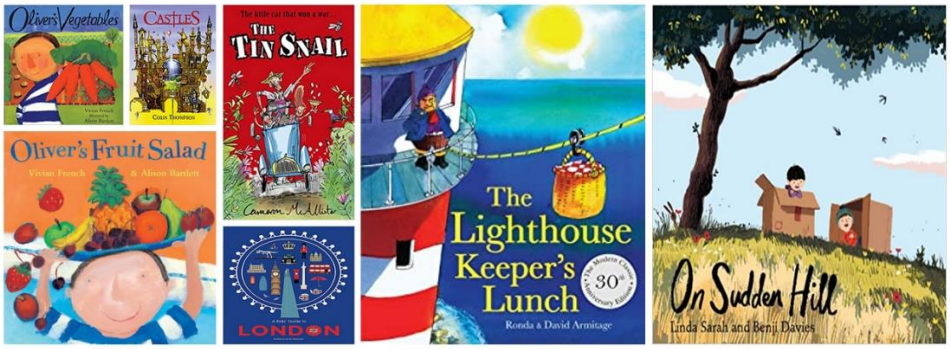
## Other useful information: Suggested Reads




## Useful websites:

https://www.smallpeicetrust.org.uk/engineering-at-home

https://designmuseum.org/digital-design-calendar/young-design-museum

Victoria and Albert Museum

Mechanical Art and Design Museum

https://www.ironbridge.org.uk/