Design Technology
at Bishop's Castle Primary School

Our Curriculum Drivers at Bishop's Castle Primary School			
Confident Communicator	**Widening Horizons**	**Growth Mindset**	**Healthy Body Healthy Mind**
Our Core Values			
Ready	**Respectful**	**Safe**	

We have devised four drivers that run through our school curriculum. They are tailored to our pupil's specific needs and take account of the opportunities and challenges in the context of our school community and our pupils' lives.

Design Technology s is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of the world's most intriguing problems. At Bishop's Castle Primary School we help children explore and appreciate the work of designers. Pupils have opportunities to discuss and evaluate products, to persevere as they create their own designs and to develop the skills required to become innovative designers of the future.

CURRICULUM INTENT

What Design Technology looks like in our school:

Exciting and creative topics , often linked to other subjects, engage children and foster their curiosity about designers and their creations.

- Children working individually, in pairs and groups to develop their skills in Design Technology (DT).
- A progression of the key design skills is used across the school evidenced in DT books which will be transition through the year groups with the children.
- Children's interests are captured through links to topics in our wider curriculum, and giving children motivation and meaning for their learning.
- Evaluation is an integral part of the design process and allows children to adapt and improve their product- a key skill which they need throughout their life.
- Children understand and apply the principles of nutrition and learn how to cook.

This is our philosophy:

- Children learning through exploring different designers' techniques whilst acquiring and developing their own skills.
- Children developing an awareness of different techniques used by different designers, building up a knowledge of how to incorporate this learning into their own creations.
- High quality modelling, scaffolding and discussion of different skills and techniques leading to children creating high-quality products, solving real problems and for a wide range of users.

This is the knowledge and understanding gained at each stage:

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 Key Stage 2 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.

CURRICULUM IMPLEMENTATION

This is how it works:

- Design Technology is provided as either cross curricular or discrete lessons.
- Exciting topics linked to the wider curriculum help to deepen understanding and offer challenge.
- The skills and techniques developed will be evidenced in D&T book which will transition up the school with the children.
- 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.
- 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.
- Where appropriate, links will be made across the curriculum to create a more deep and meaningful design education.
- Workshops or Design and Technology days relevant to specific topics may be used to immerse children in the design experience.

This is what adults do:

- 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 Technology days and running extra-curricular Design Technology clubs (e.g. Young Engineers, Cookery Club).

This is how we support:

- Work might be differentiated 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.

This is how we challenge:

- Lessons will be differentiated where possible.
- Additional activities stretch the learning within the lesson and further develop certain skills or techniques.

This is how ensure all children can access the 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. relevant vocabulary necessary for writing up design choices.

CURRICULUM IMPACT

This is what you might typically see:

- Children engaged in and enjoying their learning in DT.
- 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.

This is how we know how well our pupils are doing:

- Marking and feedback by teacher and peers.
- Monitoring of progress.
- Photographic evidence.
- Assessment is tracked and entered onto our tracking system.
- Displays of work in classes.
- Book scrutiny, pupil voice and planning audits.

This is the impact of the teaching:

- Children who enjoy Design and Technology.
- Children who can confidently discuss their learning and progress in DT.
- Reflective learners.
- Increasingly resilient learners.
- Children who are able to showcase their developing skills and techniques by creating different products and inventions.
- Children who are prepared to share the learning they have acquired in a variety of ways.
- Children who are able to apply the different design skills and techniques they have acquired to design innovative, functional, appealing products.
- Children who are inspired by the inventions and achievements of the designers they have learnt about.
- Children who aspire to becoming designers of the future.

CULTURAL CAPITAL

What is Cultural Capital?

Cultural capital can be defined as powerful knowledge, which is one of the key ingredients a child will draw upon to be successful in society, their career and the world of work. Cultural capital gives a child power. It helps them achieve goals, become successful, and rise up the social ladder without necessarily having wealth or financial capital. In Design Technology, this powerful knowledge can be split into two categories: powerful subject knowledge and powerful personal knowledge

Powerful subject knowledge in DT

- The Design Technology National Curriculum
- Design and Technology units related to food preparation and nutrition
- The knowledge of how and why children need to take care of their personal health and wellbeing
- The knowledge of how to use tools and equipment safely in DT
- The knowledge of local, national and worldwide inventions and their importance to society
- The knowledge of famous designers and how their products have affected the world today.

Powerful personal knowledge in DT

- The celebration of achievements in Design and Technology
- Visits linked to specific DT topics
- Highlighting the relevance and transferability of D&T for students' daily and future lives
- Learning about the importance of a healthy, balanced diet
- Learning how to cook a nutritious meal
- Understanding the opportunities that are available in the future to allow them to become life-long learners.

SMSC LINKS

SMSC links in Maths at Bishop's Castle Primary School

Spiritual, Moral, Social and Cultural (SMSC) development is the over-arching umbrella that encompasses personal development across the whole curriculum. At Bishop's Castle Primary School, links to SMSC are made across the Design and Technology curriculum.

Spiritual

- Exploring creativity through producing their own designs
- The ability to enquire and communicate their ideas, meanings and feelings
- Developing a sense of awe and wonder at the designs of others as well as their own
- Reflecting on and sensitively critiquing their own and others designs
- Visiting Shropshire sites and learning about the skilful work of local designers.

Moral

- Providing respectful feedback and evaluations of others' designs and products
- Promoting sharing of resources lessons
- Respecting equipment and the environment they are working in
- Rewarding good behaviour
- Rewarding effort and perseverance
- Listening to teacher and peer feedback
- Promoting trust with peers and a willingness to share work
- Encouragement to value the environment and its natural resources.

Social

- Creating a sense of community in lessons
- Interacting with the school community through displays and other sharing activities
- Encouraging pupils to recognise and respect differences and similarities
- Celebrating success both in and out of school
- Encouraging extra-curricular activities and involvement in events such as the annual Bishop's Castle Community College Primary Engineering Challenge and Green Power Goblin Car Challenge
- Opportunities to work as a team, recognising others' strengths and sharing equipment
- Providing peer opportunities for peer support in lessons
- Discussing and researching a range of designers and their work
- Encouraging and developing communication skills.

Culture

- Gaining an understanding of designers from different cultures
- Learning about the achievements of designers from around the world
- Cultural engagement through visits linked to DT
- Learning about significant designers throughout history.

G. Davies, Mar 2023