



Design & Technology Policy

Review Date January 2024

Every Child, Every Chance, Every Day; Working Together



DESIGN & TECHNOLOGY POLICY

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At Crabtree Farm, through an engaging DT curriculum, we aim to inspire our children to become the next engineers, designers, chefs, and architects.

Why Design and Technology is important?

At Crabtree Farm we believe that Design and Technology (DT) holds a fundamental importance in developing and preparing children for the ever-changing technological world. Through enriching children's creative and critical thinking, it allows them to become independent and creative problem-solvers, as both individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems.

Our Aims

We want our children to:

- Find enjoyment in designing and making things for themselves and others.
- Develop language and talk, specific to DT, to enable children to investigate, plan, make and evaluate effectively.
- Develop skills to solve problems in imaginative and creative ways.
- Explore and select appropriate tools, techniques and materials for making a product.
- Recognise the importance of DT as a vehicle for using skills which have been learnt in other areas of the curriculum.
- Develop an awareness of the potential dangers involved in DT together with an understanding of the need for safety and willingness to follow rules.
- Use the internet to research and explore past design and technology and use this knowledge in their own designing.
- Develop an understanding of health and nutrition and how to cook.
- Develop an attitude that is conscious of what a healthy lifestyle is and how food contributes towards this.

Intent

We want our children to love Design and Technology. We want them to have no limits to their ambitions. We want our pupils to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs. We ensure that links are made in a cross-curricular way, giving children motivation and meaning for their learning. We want to equip them with not only the minimum statutory requirements of the Design and Technology National Curriculum but to prepare them for the opportunities, responsibilities and experiences of later life.

Implementation

Design Technology is taught using objectives from the National Curriculum. We teach DT skills discretely, making relevant cross-curricular links, and ensure all children access all areas of the DT curriculum.



Our long-term plan outlines the topics that will be taught in each year group.

	<i>Autumn</i>	<i>Spring</i>	<i>Summer</i>
<i>Year 1</i>	Mechanisms <i>Sliders and levers</i>	Food <i>Preparing fruit and vegetables</i>	Structures <i>Freestanding structures</i>
<i>Year 2</i>	Textiles <i>Templates and joining techniques</i>	Mechanisms <i>Wheels and axles</i>	Food <i>Preparing fruit and vegetables</i>
<i>Year 3</i>	Textiles <i>2D shape to 3D product</i>	Mechanical Systems <i>Levers and linkages</i>	Food <i>Healthy and varied diet</i>
<i>Year 4</i>	Structures <i>Shell structures using CAD</i>	Food <i>Healthy and varied diet</i>	Electrical Systems <i>Simple programming and control</i>
<i>Year 5</i>	Mechanical Systems <i>Pulleys or gears</i>	Textiles <i>Using CAD in textiles</i>	Food <i>Celebrating culture and seasonality</i>
<i>Year 6</i>	Food <i>Celebrating culture and seasonality</i>		Structures <i>Frame structures</i> Electrical Systems <i>Monitoring and control</i>

- Teachers follow a clear progression of skills which ensure all pupils are challenged in line with their year group expectations and given the opportunity to build on their prior knowledge.
- Children design and make quality products using a range of tools, materials, and components, make connections with their learning across the curriculum including in maths, computing, science and art, and reflect on and evaluate techniques using subject-specific vocabulary.
- To support teaching, staff have access to a range of resources and instant CPD.
- Underpinning our DT learning are the six interrelated principles of user, purpose, innovation, authenticity, functionality and design decisions. Each project will usually (but not necessarily) include Investigative and Evaluative Activities (IEAs); Focused Tasks (FTs); and a Design, Make and Evaluate Assignment (DMEA).

Teaching Methods

The teaching methods employed vary according to the age, ability and the experiences of the children and the concept being taught.

Design and Technology is taught in whole class sessions. There are opportunities for children to work in small groups and individually within these lessons, depending on the aims and objectives.

Teachers give clear instructions to the children at the introduction of new materials/tools and the skills needed to use all equipment effectively and safely. When a new technique is being introduced, the teacher will demonstrate the technique and show a finished example.

Once a half term, DT should be used in a linked text reading session.

All work should be recorded in a project booklet. At least 3 booklets should be put in the DT cupboard once complete, as evidence. Photos should be taken throughout the project and kept on the server as evidence.

Early Years Foundation Stage (EYFS)

In EYFS, DT is taught in a very hands-on and child led way following the guidance in the Early Years Foundation Stage Statutory Framework. Opportunities are provided for children to develop Design and Technology skills through different areas of learning. Specifically: Physical Development (Fine Motor Skills), Personal, Social and Emotional Development (Managing Self) and Expressive Arts and Design (Creating with Materials).

DT is continually interwoven into the children's daily practice and provision. Specific adult led activities are planned for to teach and progress specific skills, alongside a range of continuous provision to embed and enhance children's existing knowledge and skills (see EYFS Design and Technology Curriculum document).

Health and Safety

The safety of the children is the responsibility of the class teacher. Children are made aware of the possible dangers when using certain materials. Children are taught how to follow appropriate procedures for handling tools and materials safely. Children must be supervised at all times when using specific tools that are deemed as high risk. Food safety procedures will be followed when preparing for food activities. Staff will ensure that allergies and permissions are planned for before any food items are used (lactose-intolerant/vegan/allergens etc), in line with Natasha's Law.

Equal Opportunities and SEN

We aim to provide a teaching and learning environment that allows all children to thrive and reach their full potential. All children are encouraged to take an active part in whole class sessions. Teachers adapt activities to ensure that the specific needs of individual children are best met. This includes providing adult support and appropriate equipment and materials to enable all children to access the DT curriculum. Teachers are also aware of children who have a particular talent for DT and aim to provide additional challenges for these children where appropriate.

Resources

All DT resources are kept in a central place for everybody to access. The resources are located in a cupboard, in the dinner hall. It is the subject leader's responsibility to order resources and to keep track of what is needed. However, it is the responsibility of the class teacher to ensure that there are sufficient resources available for the coming lesson. They need to ask the subject lead, in enough time, if something needs buying or ordering.

Each class is allocated £20 per year for their food project. It is the class teacher's responsibility to buy the ingredients needed.



Assessment

There is no formal assessment in DT. Teachers continually make informal assessments of the children's skills by:

- Observing their capability at completing specific skills during class sessions.
- Talking to the children on an individual basis.

Help and support is given based on any need identified.

Teachers note any children who are gifted and talented in DT and their names are passed onto the gifted and talented lead.

Role of DT lead

The subject leader will monitor the teaching and learning of DT across the school, ensuring a high quality, broad and stimulating curriculum. The leader will also:

- Keep up to date with developments in DT
- Identify gaps in knowledge and skills within staff team (including in herself)
- Plan and deliver effective CPD for staff
- Carry out scrutiny of planning and work
- Carry out lesson drops
- Complete teacher and pupil questionnaires/interviews

Miss Staniland, DT Subject Leader
January 2023, to be reviewed in January 2024