



Design and Technology Subject Guidance Document

Summary of Intent

At Casterton Primary Academy, we value Design and Technology as an important part of the children's entitlement to a broad and balanced curriculum. Design and Technology provides the children with the opportunities to develop and extend skills in areas such as: Structures, mechanical systems, electrical systems, cooking and nutrition, textiles and digital world. It also gives children an opportunity to express their individual interests, thought and ideas.

Design and technology is a practical and valuable subject. The sequence of plan, make and evaluate teaches children how to hypothesise, create, test, refine and take risks. A high-quality Design and Technology education should engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent, create and evaluate their own work. As pupils progress, they should be able to think critically and develop a more rigorous understanding of Design and Technology, develop their progression of skills and use problem-solving skills to adapt and improve a current project. They should also be made aware how Design and Technology both reflects and shapes our history, contributes to the culture, creativity and wealth of our nation and forms significant contributions to both our local community and the wider world.

What DT looks like at Casterton Primary Academy

The teaching and implementation of the Design and Technology Curriculum at Casterton Primary Academy is based on the National Curriculum to ensure a well-structured approach to this creative subject, whilst covering skills appropriate to enhance learning.

The children are taught three Design and Technology each year with focus including: designing, making and evaluation. All units covered focus on a wide range of skills. Areas covered include electrical systems, structures, mechanical systems, textiles and cooking/nutrition.

DT enrichments are encouraged with examples including: Links with STEM (Science, Technology, Engineering, Maths) have been established with school who provide engineering projects, CPD and engineers visiting the school from EYFS to Year 6.

After-school Design and Technology clubs have been implemented to allow children to develop skills.

How DT develops in EYFS and transitions into KS1

Early Years Foundation Stage, Design and Technology are two aspects of Understanding of the World in the Early Years Foundation Stage. Designing and making is one of the aspects of knowledge and understanding of the world. Children are encouraged to build with a wide range of objects, selecting appropriate resources and adapting their work where necessary. At Casterton Primary Academy, we believe that these skills and inquisitive nature will allow children to have and take the tools to progress into the KS1 curriculum.

Key stage 1 Through a variety of creative and practical activities, pupils will be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They would work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils will be taught to:

Design · design purposeful, functional, appealing products for themselves and other users based on design criteria · generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make · select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] · select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate · explore and evaluate a range of existing products · evaluate their ideas and products against design criteria Technical Knowledge · build structures, exploring how they can be made stronger, stiffer and more stable · explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products

Planning Expectations

Design and Technology is a progressive subject and it important for it to be taught on a regular basis. For Design and Technology to be effective, skills laid out in the national curriculum must be used to inform lesson content and also to assist in the assessment of the topic. A new scheme of learning for Design and Technology has been implemented by Casterton Primary Academy, which clearly sets out key teaching points, progressive skills, assessment tools for teachers to have a consistent approach throughout the school. Planning also indicates skills covered by children from previous years to help inform teachers of expectations of children.

Non-negotiables

- New scheme of work to be used across the school to give a consistent approach to teaching and assessment of the subject.
- Units of work should fit into existing topic units so children see a relevance to what they are being taught. If this isn't the case, stand-alone units should be used that develop independent skills.
- Units of work will be taught each year, 6 units over a 2-year rolling program.
- Design and Technology should be taught by teachers where possible.
- Work to be evidenced in art books, whether it be pieces of children's work, photographs of practical activities or written/planning works.

Adapting the (subject) curriculum for children with SEND

Design and Technology is all inclusive, regardless of ability, gender, ethnicity or SEND. Every opportunity for all children to take part in Design and Technology lessons will be given at all times. Children with EHCP, learning or physical needs will be supported to access a full curriculum in an attempt to express their creativeness without fear of physical or learning confinements. This will be achieved through teacher/TA support and various levels of differentiation. More manageable equipment/tools will be used when and where appropriate.

Children Who Require Different Objectives:

Some pupils with SEND will have to work on different activities or towards different objectives from their peers.

- Before teaching a new unit, teachers will always check that the children have the prior learning needed to undertake new learning.
- For pupils who are working significantly below year group expectations, teachers will identify the prior learning using the progression of knowledge in history. Class teachers select appropriate objectives and ways of working for individuals and design learning tasks to match these.
- Objectives selected will build on the prior learning of the child and will provide challenge to move the children's learning forward.

Assessment

Children will be assessed at the end of each unit through teacher assessment. Teachers will assess the children in each lesson using the learning objective for that lesson.

Assessment is continuous and it is recorded against key statements for which pupils attain at, above or below the expectations for the year group on the MTP. These are then used to make the overall subject assessments that are put onto Target Tracker. Ongoing assessments take place throughout the year. Teachers use this information to inform future lessons; ensuring children are supported and challenged appropriately.

At Casterton Primary Academy we have three assessment points during the year. Autumn (Dec), Spring (March) Summer (June). However, teachers should update assessments for Design and Technology at the end of a unit rather than wait until the end of term.

This data is analysed on a termly basis to inform and address any trends or gaps in attainment.

Curriculum Enrichment

Opportunities are planned for pupils to:

Receive visits/tuition from local companies

Visit local museums with appropriate content for Design and Technology

Extra-curricular Design and Technology club

Make links with other school within the Trust

Make links with local companies to demonstrate Design and Technology in the wider world