Eileen Wade Primary School

Design Technology Policy

Curriculum Intent

As a school we value and are dedicated to the teaching of Design Technology. We see this as a fundamental part of school life. Furthermore, we recognise that Design and technology prepares children to take part in the development of tomorrow's rapidly changing world. We aim to provide a stimulating, rigorous and practical Design and Technology curriculum that aims to allow children to be innovative, critical thinkers, and develop their creativity and understanding of the world around them. This will enable them to design and make a range of high quality products within a variety of contexts. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. They will develop their ability to investigate, analyse and evaluate, applying their understanding and technical knowledge across a range of products and materials. The children will also be given the opportunity to understand nutrition and learn how to cook.
This will in turn aid the children to skilfully design and develop their own products with a purpose in mind. We aim to provide a Design and technology curriculum that helps all children to become potential innovators and develop a love of Design and Technology.

Implementation

We will teach Design Technology in all year groups through at least one topic per term, which includes one topic relating to food each year. A time allocation of 8-12 hours is planned for each project. Most of our Design Technology projects are often made cross curricular - linking to other subjects taught. We aim to implement this through a variety of teaching methods; Design and Technology lessons, developing skills in Art and Design, and through a cross curricular approach within other subject lessons. Design and Technology requires children to draw on skills within Mathematics, Art, Science and Computing.

The teaching of Design Technology across the school follows the National Curriculum. In 2020, we began implementing the national scheme of work 'Projects on a Page' into our D&T curriculum. This has enabled us to deliver it in a more imaginative, creative and motivating way.

Our lessons are based on the six essentials of good practice in D&T to ensure children's learning is genuinely design and technological in nature. The six essentials are;

Eileen Wade
Primary

- User
- Purpose
- Functionality
- Design Decisions
- Innovation
- Authenticity

Each term's project is evaluated using a star diagram that enables us to evaluate the overall potential of the project to ensure each of the D&T essentials has been addressed. Different projects will have a different profile.
The Design technology subject leader evaluates the projects in the long-term planning to ensure each essential is adequately addressed over the course of the key stage.

We have Design technology skills tracking and knowledge assessments that clearly show progression through the school. We also complete end of unit assessments to track pupil progress and inform the subject leader of design technology within the school

At the heart of Projects on a Page is the designing and making process in the programmes of study. The scheme of work ensures children design, make and evaluate products using the broad range of materials and components specified in the statutory requirements. These include construction materials, textiles, food, mechanical components and, in Key Stage 2 only, electrical components.

Each unit includes three types of activity:

- Investigative and Evaluative Activities (IEAs) where children learn from a range of existing products and find out about D&T in the wider world;
- Focused Tasks (FTs) where they are taught specific technical knowledge, designing skills and making skills;
- Design, Make and Evaluate Assignment (DMEA) where children create functional products with users and purposes in mind.

Through IEAs and FTs children are equipped with the knowledge, understanding and skills to engage successfully and with increasing independence in a DMEA. IEAs and FTs do not have to be followed in sequence and to ensure good practice, the teacher dips in and out of these activities to meet children's needs.

The children will deepen their understanding and independence within all of these areas during their Design and Technology lessons.
Children are given regular opportunities to develop their understanding of the technological world. We will evaluate past and present design and technology and the ways that these have influenced modern society. This will allow our children to have a more critical approach to their own designs and creations.

Eileen Wade
Primary

Throughout their time at Eileen Wade Primary, children will be encouraged to take risks and be creative when designing and making their products. Lessons will be hands on and engaging, with the children having access to lots of resources and materials. They will be encouraged to think critically in order to evaluate their past prototypes and when testing their current designs. This will allow the children to build upon their artistic skills and become more resourceful.

Children design products with a purpose in mind and an intended user of the products. Food technology is implemented across the school with children developing an understanding of where food comes from, the importance of a varied and healthy diet and how to prepare this. Children will be able to talk about their learning and the process they have followed, demonstrating their understanding, allowing them to 'shine brightly'.

Design and Technology also embeds our values. It is an inspiring, rigorous and practical subject, requiring creativity, resourcefulness, and imagination. Pupils design and make products that solve real and relevant problems within a variety of contexts Children learn to take risks, be reflective, innovative, enterprising and resilient. Through the evaluation of past and present technology they can reflect upon the impact of Design Technology on everyday life and the wider world. The children are also encouraged to evaluate their own work and their peers, suggesting improvements.

Early Years Foundation Stage

The most relevant statements for DT are taken from the following areas of learning in EYFS:

• Physical Development

• Expressive Arts and Design

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Primary

DT			
Three and Four-Year-Olds	Personal, Social and Emotional Development		• Select and use activities and resources, needed. This helps them to achieve a go one which is suggested to them.
	Physical Development		• Use large-muscle movements to wave fl paint and make marks. • Choose the right resources to carry out t • Use one-handed tools and equipment, fo snips in paper with scissors.
	Understanding the World		• Explore how things work.
	Expressive Arts and Design		• Make imaginative and complex 'small w and construction kits, such as a city with and a park. • Explore different materials freely, in orde ideas about how to use them and what t • Develop their own ideas and then decide use to express them. • Create closed shapes with continuous li these shapes to represent objects.
Reception	Physical Development		• Progress towards a more fluent style of developing control and grace. • Develop their small motor skills so that t tools competently, safely and confidentl • Use their core muscle strength to achiev
ELG	Physical Development	Fine Motor Skills	• Use a range of small tools, including sci and cutlery.
	Expressive Arts and Design	Creating with Materials	• Safely use and explore a variety of mate techniques, experimenting with colour, d and function.

During the EYFS pupils explore and use a variety of media and materials through a combination of child initiated and adult directed activities. They have the opportunities to learn to:

- Use different media and materials to express their own ideas
- Use what they have learnt about media and materials in original ways, thinking about form, function and purpose
- Make plans and construct with a purpose in mind using a variety of resources
- Develop skills to use simple tools and techniques appropriately, effectively and safely
- Select appropriate resources for a product and adapt their work where necessary
- Cook and prepare food adhering to good health and hygiene routines

Eileen Wade
Primary

Curriculum Impact

- Whilst in school, children have access to a varied programme, which allows students to discover areas of strength, as well as areas they might like to improve upon
- The progressive schemes and long term plan enable pupils to revisit, reinforce and then progress their learning
- Children enjoy and talk enthusiastically about Design technology. They are keen to engage in all three activity areas (FTs, IEAs and DMEAs) and develop their knowledge further.
- There is a clear progression of subject knowledge and design technology skills which is shown in teacher planning, assessment and pupil's work
- Children reinforce, develop and progress their design technology skills at all stages with KS2 becoming more independent, creative, confident and innovative with designing, making and evaluating their products
- Pupils work collaboratively with others
- Children understand and use key vocabulary that is specific to their design technology project in their talk and work
- Pupils use tools and materials with confidence
- Our intention is for all our pupils to reach age related expectations and the school's skill tracking targets by the end of each key stage/phase
- Pupil's knowledge and skills are reinforced and deepened through Design Technology Days and first hand experiences in the school environment
- Teachers are aware of the vision for Design technology and apply this in their planning and teaching
- The Design Technology subject leader is aware of the teaching and learning within the subject across the school.

Teaching & Learning

A variety of teaching methods are employed as appropriate and Design technology regularly involves children in practical work through small group activities and whole class activities. Children are taught to record their work in a methodical, organised, neat manner. ICT e.g. Seesaw is used as a resource for recording the unit of work and the different stages within it. Design Technology is a time-tabled subject which is taught weekly; the content is in line with National Curriculum guidelines. It is taught both as a discrete subject throughout the school and also as part of cross-curricula themes where appropriate.

During the year, we will provide enrichment activities and Design and technology days/ competitions both as a whole school and within individual classes. This is aimed at

Eileen Wade Primary

reviewing, extending and enhancing the learning of all pupils, challenging our most able pupils.

EQUAL OPPORTUNIIES/SPECIAL EDUCATIONAL NEEDS/DIFFERENTIATION

Children with SEND have equal access to resources and materials. Activities are differentiated and support given to ensure the needs of pupils are best met. Work produced by all pupils is valued and celebrated through display, assemblies and class activities. Children who show particular aptitude are identified, encouraged and given opportunity to flourish.

ASSESSMENT AND RECORDING

On-going informal assessment takes place in each lesson. Assessment records are updated at the end of each unit of work using the school's skill's progression tracking sheets. These are then passed to the co-ordinator which shows the data and any gaps in learning that need to be covered.

The children's prior learning is assessed at the beginning of each topic and is used to support teaching and learning throughout the scheme.

At the end of each school-year, a teacher assessment judgement for each child is made using the National Curriculum framework and these assessments are reported to parents. This judgement is made based on Design Technology knowledge and skills.

HEALTH AND SAFETY – FOOD TECHNOLOGY

When working with food:

*An adult will be required to supervise activities involving cooking and food handling/preparation.

*When undertaking food activities the appropriate Health and Safety procedures must be adhered to.

*When working with food all children should follow personal hygiene guidance (tie back hair, clean apron, use of blue plasters and washing hands)

*Teachers should check the dietary needs of the children in their class to identify any foods that should not be available to specific children, or groups of children.

*Any perishable food should be stored in a fridge.

*Only the equipment which is for food use only, should be used.

Eileen Wade
Primary

*Glass and wooden items should never be used.

*Ensure all tables are cleaned with an antibacterial food safe spray.

*Only use equipment set aside to use with food.

*Set aside an area for children to wash their hands.

*Teachers taking part in any food activity should dress appropriately and follow the same procedures as the children with regard to any rules regarding personal hygiene.

*Ensure that all equipment is cleaned and put away.

* When using the oven and/or hob an adult must be there to offer support and supervision. Fire blankets should be next to the oven/hobs.

*Appropriate knives should be used depending on what year group is using them and the use of sharp knives should be supervised.

*Ensure that all children use their own equipment when tasting food.

*Certain spoons should be identified and used when placing food onto plates for children to taste food, teachers/TA's need to ensure children do not use their own.

HEALTH AND SAFETY – DESIGN TECHNOLOGY

Adults should ensure that:

- DT equipment is not left out and unsupervised. Floors and work surfaces are kept clean and tidy and all tools used must be of good quality, in good condition and stored safely.

- Direct safety instructions should be given to children each time they undertake a design and technology activity.

- Children should be given suitable instruction on the operation of all equipment before being allowed to work with it.

- Children should be strictly supervised in their use of equipment at all times. Adult to child ratio must be appropriate to the activity e.g. closer supervision on activities such as use of a glue gun.

- Children should be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.