'Together we grow'

Emmaville Primary School

Design and Technology Policy

DT Co-ordinator: Charleine Foster

Rationale

Design and Technology at Emmaville Primary School develops children's skills and knowledge in design, structures, mechanisms, electrical control, computing and a range of materials, including food and textiles. Design and Technology is an inspiring, rigorous and practical subject. It encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team. At Emmaville Primary, we encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We aim to, wherever possible, link work to other disciplines such as mathematics, science, history, geography, computing and art. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.

Aims and Objectives – Intent

The national curriculum for DT aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook

At Emmaville Primary School, our aim is to enthuse, develop and challenge pupils through an engaging and progressively structured DT curriculum and teaching approaches where pupils:

- Develop lively and enquiring minds through their ability to question and argue rationally and to apply themselves to tasks
- Attain competency and confidence in DT that will enable them to contribute to our local and global communities
- Acquire the knowledge and skills relevant to subsequent stages in their education, adult life and employment

Approaches to learning – Implementation

Key skills and key knowledge for DT have been mapped across the school to ensure progression between year groups. This also ensures that there is a context for the children's work in Design and Technology; that they learn about real life structures and the purpose of specific examples, as well as developing their skills throughout the programme of study.
Design and Technology lessons are taught as block so that children's learning is focussed throughout each unit of work.

Early Years DT Curriculum - Implementation

During the Early Years Foundation Stage, the essential building blocks of children's design and technology capability are established. There are many opportunities for carrying out D&T-related activities in all areas of learning in the EYFS. Specifically, 'Designing and Making' is identified as a strand within Knowledge and Understanding of the World. By the end of the EYFS, most children should be able to:

•Construct with a purpose in mind, using a variety of resources

•Use simple tools and techniques competently and appropriately

•Build and construct with a wide range of objects, selecting appropriate resources and adapting their work when necessary

•Select the tools and techniques they need to shape, assemble and join materials they are using

Key Stage 1 and Key Stage 2 DT Curriculum – Implementation

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in the process of designing and making. The children work in a range of relevant contexts (for example home, school, leisure, culture and the wider environment).
When designing and making, the children are taught to:

Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer-aided design

Make

- select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products
- understand and use electrical systems in their products
- apply their understanding of computing to program, monitor and control their products

Assessment - Impact

Design and Technology assessment is on-going and formative. It happens in the classroom as part of the normal teaching process. It informs lesson pitch, differentiated intervention and future planning. The key documents to support this process are the national curriculum and our curriculum companion. To help the pupils to meet the attainment goals, we have broken these down into milestones. The milestones describe attainment at the end of a two-year period. The knowledge categories and proof of progress tasks help the pupils to meet these goals and we compare pupil's work over time assessing the impact.

- Milestone 1 – at the end of Key Stage 1
- Milestone 2 – at the end of Lower Key Stage 2
- Milestone 3 – at the end of Upper Key Stage 2

See appendix 1

Topic based oral/activity/classwork are used to inform on DT knowledge and areas of individual/group misconception. Marking should comply with the school policy and should include:

- 'short-term' topic-specific comments to correct misconceptions/errors and to drive progress within that topic. Work should then show short-term improved knowledge and accuracy within that topic.
- 'long-term' skill-specific comments to match work to skill criteria to drive progress between topics.

The Role of the Co-ordinator

The subject leader will monitor the teaching and learning of Design and Technology across the school; ensuring a high quality, broad and stimulating curriculum. They will also maintain a range of good-quality materials and tools, enabling teachers to resource and teach effectively.

The subject leader will also:

- take the lead in curriculum development in consultation with the headteacher, staff and governors
- monitor the teaching of DT in the school, ensuring that there is sufficient coverage and progress in the subject
- lead curriculum meetings
- attend DT network meetings and relevant courses
- support staff by providing information on training

Date policy produced: January 2020

Review Date: January 2022