

DALLAM CP SCHOOL



Design and Technology Policy

Date of this Review	Feb 2023
Next Review due	Feb 2024

Intent

At Dallam Primary School, we recognise that Design and Technology is an important subject for our children to learn as it provides the skills and knowledge needed for independent thinking and enquiry. Through our Design and Technology curriculum, we aim to equip our children with the skills to design, create and evaluate for a range of different purposes, to make use of design and technology effectively in their everyday lives and to inspire them to consider careers using these skills.

High quality teaching ensures progression of skills, and is sequenced to build on previous learning. Our children gain experience and skills of a wide range of formal elements of design and concepts of technology in a way that enhances their learning opportunities, enabling them to use design and technology across a range of subjects to be creative and solve problems. The curriculum is adapted as appropriate to ensure that all children make progress regardless of their starting points.

Implementation

At Dallam Primary School we follow the National Curriculum for England and the Early Years Foundation Stage.

We use the Kapow scheme of work to support non-specialist teachers to deliver high quality lessons which satisfy the expectations of the National Curriculum and Early Years foundation Stage. It also ensures that there is a context for the children's work in Design and Technology and that they learn about and use real life models and structures in a real-life context. The knowledge and skills taught in each year group is progressive, building on the year before and ensuring that learning is embedded.

Using the Kapow Primary Design and Technology scheme to underpin our curriculum, we adopt a mastery approach, promoting:

- the knowledge and vocabulary to research, design, create, test and evaluate to a given brief.
- the ability to communicate technological knowledge and understanding and apply this through experiences.
- a tailored curriculum based around building confidence, self-motivation and enquiry skills.
- perseverance and challenge through hands on experiences.
- the skills to work both independently and in co-operations with others.
- a cross-curricular approach wherever possible to designing and creating, based around real - life products.
- the ability to question, reflect and evaluate and to use these skills to make changes.
- the expectation that all children have experience of the design process and gain the physical skills and knowledge needed to achieve in design and technology.

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills to independently design and make a product. Our curriculum is carefully built to take into consideration our children's previous knowledge and experience, ensuring that progression of skills and knowledge is built on each year.

When designing and making, the children are taught to:

Design

- Use research and a design criteria to inform the design of innovative, functional, appealing products that are fit for a purpose, aimed at particular audiences.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, diagrams, prototypes and computer-aided design.

Make

- Select from and use a wider range of tools and equipment to perform practical tasks including cutting, shaping, joining and finishing with accuracy.
- Select from and use a wide 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 to influence the modern world.

Design and technology is taught throughout the year with a different unit being taught every half term. It is taught through discrete lessons, using a 2-weekly cycle. Each year group covers a unit on:

- Cooking and nutrition
- Mechanical systems
- Textiles
- Electrical systems
- Structures
- And in KS2 children also cover a unit on the Digital world.

Early Years Foundation Stage

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

Assessment

Key skills and assessment objectives are detailed for each year group (from EYFS through to year 6) to ensure progression. These can be found on the design and technology progression grid.

Assessment of children's learning in design and technology is ongoing throughout the planning, teaching and learning cycle. Class teachers monitor children's understanding, knowledge and skills throughout the sequence of lessons. This assessment is then used to inform adaptation, support and challenge for each individual child. Assessments are recorded termly by class teachers across each year group to inform the subject leader of progress or skills and knowledge still to be embedded. This is recorded on the school tracker system.

Resources

Design and Technology resources can be found down the year 6 corridor next to the maintenance office. If resources are not available they can be ordered by speaking to the DT subject leader (Miss Downs), the school business manager or Headteacher. Orders need to be placed the term before unit to make sure these arrive in time.

Impact

Design and technology is monitored by the subject leader throughout the year in the form of book monitoring, looking at outcomes, lesson drop-ins, and pupil interviews. The subject leader measures the impact of the curriculum by undertaking a pupil voice at the beginning and end of the school year to assess the children's knowledge and understanding of the subject as well monitoring of assessments. Feedback to teachers after monitoring and subject leader support enable improvements in curriculum delivery.

Monitoring shows that children are enthusiastic about and have confidence in design and technology. They can apply this to other areas of the curriculum through regular, progressive lessons which enable children to build their knowledge and understanding systematically over time. Feedback to children enables them to reflect on their learning and make improvements.

Children will ultimately know more, remember more and understand more about design and technology, demonstrating this knowledge when using tools or skills in other areas of the curriculum and in opportunities out of school.

The intended impact is that, as designers, children will develop skills and attributes that they can use to move to the next stage of their education and foster an interest that will extend beyond school and into adulthood. As they leave KS2, this means that they can:

- Understand and be able to use mechanical systems in a range of contexts.
- Understand and use electrical systems and apply this knowledge to real life situations.
- Apply their understanding of computing to program, monitor and control products
- 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 as well as the work of others.

- Understand and apply the principles of nutrition and know how to cook.
- Design and make a range of products based on design criteria to a high standard and good quality finish.
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- Take risks and be resourceful
- Develop an understanding of the impact of design and technology on daily life and the wider world, through the evaluation of past and present design and technology