



Design and Technology Policy

Intake Farm Primary School and Nursery

1. Subject Statement

Intent

- At Intake Farm Primary School, we intend to provide a Design and Technology curriculum that is creative, inspiring and provides practical and purposeful experiences for our pupils.
- Using creativity and imagination our pupils work as individuals and as part of a team to design, make and evaluate their products whilst considering the needs, wants and values of themselves and others.
- Children design and make products within a variety of contexts, to provide motivation and meaning to their learning. They are given opportunities to investigate and reflect upon existing products, and are encouraged to explore their curiosity, work logically and become innovators, risk-takers and problem solvers.
- Children acquire a broad range of practical skills whilst also consolidating skills taught in other subject areas such as mathematics, science, computing and art. Through our Design and Technology curriculum, pupils will learn how to be innovative and enterprising citizens of the future.

D&T projects are embedded within our class topics each term or half term. Our aims in teaching D&T are that all children learn to:

- Explore their curiosity to find out how things work/ are made.
- Select appropriate materials, tools and techniques for making a product, whilst following safe procedures.
- Talk about what they like and dislike when designing and making.
- Be independent, creative and innovative.
- Find enjoyment, satisfaction and purpose in designing and making.
- Value and respect their work and others work.
- Discuss their work, using appropriate vocabulary.
- Be reflective and say what is good about a product and what can be improved.
- Use ICT software to assist their designing and learning.

Implementation

In design and technology lessons pupils 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 individuals or groups.
- 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, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

- select from and use a wider range of tools and equipment to perform practical tasks including example, cutting, shaping, joining and finishing.
- 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.

Impact

- Children understand and apply the principles of nutrition and learn how to cook.
- Children develop problem solving skills, creativity, perseverance and resilience which are key skills and attributes that they can use throughout school and into adulthood.
- Children apply their knowledge to create independently and innovate.
- Children develop reflective skills helping them to recognise how to improve.

2. Teaching and Learning

Design and Technology will engage the children in a broad range of designing and making activities across the school. All D&T projects follow the design, make and evaluate sequence. The teaching of Design and Technology at Intake Farm encourages children's independence, freedom and creativity to create, using the knowledge and skills they have learned and developed.

Design and Technology teaching at Intake Farm allows children to develop their technical knowledge of mechanisms, materials and structures, textiles, cooking and nutrition, covering at least three of these areas each year. With the addition of electrical systems in upper key stage 2.

D&T projects are usually taught over a half-term and some over a term. This allows teachers to focus on developing children's design and technology skills and knowledge each week. Teaching follows the objectives set out on the knowledge organisers enabling children to demonstrate independence in applying their learning to create their own ideas and select appropriate materials and techniques to create products.

3. EYFS

Design and Technology is introduced in the Early Years within the Expressive Art and Design section of the Development Matters. At Intake Farm, children in the Foundation Stage begin to develop Design and Technology skills and knowledge through their play-based curriculum. Children in the

Foundation Stage are provided with ample opportunities for creating, every day, including construction kits, junk modelling as well as large construction and loose parts. Design is encouraged through talking about and planning what they are going to make, with some children beginning to draw designs. Skills and knowledge are developed through trial and error as well as modelling. Evaluation is encouraged through conversations in play and opportunities given for children to share their creations with the class, reflecting on the methods and effectiveness. Children in the Foundation Stage are also introduced to cooking and nutrition, experiencing multiple cooking and tasting activities each half-term.

4. Key Stage 1 and Key Stage 2

Design and Technology in Key Stage 1 builds upon children's play-based exploration in the Early Years. Children are provided with opportunities to explore existing products and look closely at how they are made and work. Children are encouraged to plan, create mock-ups and draw designs of their products. Children are taught specific technical knowledge and skills and are encouraged to apply this to create their own products to meet design criteria, selecting appropriate materials, tools and equipment. Children evaluate their products against design criteria, considering strengths and areas for improvement. Children learn the basic principles of a healthy eating and where food comes from.

In key stage 2 Design and Technology learning builds upon Key Stage 1. Children develop design criteria based upon their research. Children build upon their design skills to develop sketches, cross-sectional and exploded diagrams, prototypes, and computer-aided design. Children further their technical knowledge and explore electrical systems can be used in their products. Children learn how key events and individuals in design and technology have helped shape the world. Children are encouraged to consider the feedback of others in their evaluations.

5. Assessment and Recording

Teachers regularly assess children's knowledge and understanding of D&T through formative assessment including observation in the lessons and the work that children produce. Teachers use summative assessment, assessing children against the National Curriculum objectives, at the end each term and use these to monitor progress.

D&T work is recorded in topic books and more practical aspects are recorded through photographs in class floor books.

6. Inclusion

At Intake Farm, we teach design and technology to all children. D&T forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our D&T teaching, we provide learning opportunities that enable all pupils to make progress.

We support children's learning, where necessary, whilst promoting their independence. We scaffold learning through our conversations, interactions and modelling as well as adapting resources where needed (e.g. snips). We set suitable learning challenges and respond to each child's different needs. We enable pupils to have access to the full range of learning opportunities involved in learning D&T. Appropriate risk assessments are carried out and support put in place, to ensure that the activities are safe and appropriate for all pupils.

7. Equal Opportunities

Equal opportunities are addressed in the whole school Equality Policy and care is taken in D&T lessons to ensure all pupils are provided opportunities to experience the range of activities on offer.

8. Resources

D&T materials and resources are stored in the art store cupboard. Further D&T specific resources and tools are kept in the D&T cupboard. D&T resources are locked away for safety reasons and should be returned after use.

9. The Subject Leader

- The school's appointed subject leader will oversee the continuity of the subject and the progression of teaching and learning within annual and medium-term plans.
- They will monitor the quality of teaching and the standard of work produced.
- The subject leader will offer support to colleagues and share their expertise and experience.
- They will encourage staff and pupils to be creative and advise teachers on teaching methods they may wish to explore.

10. Health and Safety

Safety

A safe working environment and ways of working need to be encouraged from the earliest stage and safe practices should be understood by voluntary helpers. All areas must be under the direct vision of the teacher and there should be enough space for each child to work comfortably.

Working with food

Cooking utensils and work areas should be kept meticulously clean. Children should be taught simple personal hygiene and food preparation rules.

Working with tools

Design and Technology specific tools that present a safety hazard such as saws, glue guns, craft knives, drills and hammers are stored securely in the D&T cupboard. Children should be trained to use tools safely from the Foundation Stage to year 6. Safe use of these tools should be recapped each time they are used. Tools should always be used under supervision. Splitting children into groups (for example, 2 groups researching and 2 groups using tools) is recommended to facilitate appropriate supervision. Teachers are responsible for ensuring appropriate staff to pupil ratios and supervision when using tools. Teachers should assess the risks and plan how to manage these within the lesson. Teachers should seek advice from the D&T leader or headteacher, where appropriate. The school Health and Safety Policy will be adhered to, at all times.

Charlotte Hough, June 2024.

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