



## **Dishforth Airfield Primary School: Design and Technology Vision Statement**

Design and Technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems, within a variety of contexts, considering their own and others' needs, wants and values.

At Dishforth Airfield Primary School children are taught to select and use appropriate tools safely and effectively to make a product. In all areas of Design and Technology the children are encouraged to consider the effectiveness of their designs and requirements of the product. Every child will have the opportunity to learn and extend their understanding, experience and application in the use of technology, including I.C.T, in as wide a variety of situations as possible. Over the course of their primary schooling, children will develop a bank of technical knowledge.

At Dishforth Airfield, activities are planned in Design and Technology so that they build upon prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

### **Aims and Objectives**

- to deliver programmes of study for Key Stages 1 and 2 of the National Curriculum in Design and Technology;
- to develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making;
- to enable children to talk about how things work, and to draw and model their ideas;
- to encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;
- to explore attitudes towards the made world and how we live and work within it;
- to develop an understanding of technological processes, products, and their manufacture, and their contribution to our society;
- to foster enjoyment, satisfaction and purpose in designing and making.

### **Organisation of teaching and learning**

#### **Early Years Foundation Stage**

During the **Early Years Foundation Stage** (EYFS) pupils explore and use a variety of media and materials through a combination of child initiated and adult directed activities. They have opportunities to learn to:

- Explore the textures, movement, feel and look of different media and materials;
- Respond to a range of media and materials developing an understanding that they manipulate and create effects with these;
- Use different media and materials to express their own ideas;
- Construct with a purpose in mind using a variety of resources;

- Develop skills to use simple tools and techniques competently and appropriately;
- Select appropriate resources for a product and adapt their work where necessary.

## **Key Stage 1 and 2 Curriculum**

The Design and Technology curriculum contains two strands of subject content:

- 1) Design and making - Each Design and Technology project should include elements of:
  - Designing
  - Making
  - Evaluating
  - Technical knowledge
- 2) Cooking and nutrition - when designing products, pupils should consider:
  - User – pupils should consider who their products are for
  - Purpose – pupils should decide which tasks their products will perform
  - Functionality – pupils should think about how their products will work
  - Design Decisions – pupils should have opportunities to make informed choices
  - Innovation – pupils should have scope to be original with their thinking
  - Authenticity – pupils should design and make products that are real, believable and can be evaluated through use

## **Curriculum Coverage**

Each class should undertake at least three Design and Technology units per year. One of these must be a Food project and the other can be selected from:

- Textiles
- Structures
- Mechanisms (KS1)
- Electrical or Mechanical Systems (KS2)

## **Planning**

- Long term plans map out the units to be covered each term, during each Key Stage.
- Medium term plans identify learning objectives and outcomes for each unit, as well as indicating the skills being taught and key vocabulary.
- Short term plans prepared by each teacher, highlight the skills and objectives of the lesson, and identify resources and appropriate differentiation.

## **Structure of a lesson**

1. Warm-up to the lesson which activates prior knowledge and vocabulary encountered in order to increase the power of working memory.
2. A metacognitive approach to teaching and learning:
  - Explicitly teach metacognitive strategies - activating prior knowledge, independent practice and structured reflection
  - Modelling by the staff, verbalising their thinking and scaffolding tasks in relation to design and technology
  - Setting an appropriate level of challenge

- Promoting and developing metacognitive talk in the classroom – language development and acquisition
  - Explicitly teaching children how to organise and effectively manage their learning
3. Task – independent / paired / group
  4. Plenary

### **Resources**

- Central resources are kept in the stock cupboard.

### **Assessment**

In Design and Technology assessment is continuous. From the beginning of every lesson, teachers and teaching assistants will be assessing what their pupils are, or are not understanding and use this to scaffold each segment of the lesson. Interventions will be both planned for and 'live', meaning that misconceptions are dealt with immediately and high attaining pupils are challenged appropriately.

### **Foundation Stage**

- Staff's ongoing observational assessments ascertain a baseline when each child begins EYFS which then informs subsequent teaching and learning for each child.
- Future attainment is noted using photographs and observational notes. Progress is recorded in each child's Learning Journey and the next steps to be taken are identified. Progress is monitored termly.
- Statutory assessments are made on exit of the EYFS.

### **KS1 and KS2**

- In the Design and Technology lesson, formative assessments are made on a lesson basis. Practitioners observe, question and evaluate lesson outcomes to further determine progress made and the next steps in learning.
- Assessments are made at the end of each term to monitor children's knowledge and understanding of concepts taught. Assessments are recorded on the DT assessment grids termly.

### **Monitoring procedures**

The Head teacher and DT subject leader play a central role in the monitoring and evaluation of the quality of teaching and learning of Design and Technology in the school.

The monitoring strategy:

1. Children's work and planning scrutinies are conducted.
2. Pupil progress meetings are held termly.
3. Lesson 'drop ins' and observations take place in all classes throughout the year.

The subject leader is responsible for monitoring attainment and progress, the outcomes of which are collated in the subject leadership folder and fed back to staff at an appropriate time.