




## ASHFIELD INFANT AND NURSERY SCHOOL

# Design and Technology Policy 2024-2026

Policy Details:	
Name of Subject Leader:	Mrs Sue Rickerby
Named Link Governor:	Mr Paul Nixon
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Headteacher Signature:	

# Design and Technology Policy

*Design and Technology is about making things that people want and that work well. Creating these things is hugely exciting: it is an inventive, fun activity.*  
(James Dyson, Chairman, Dyson Ltd)

## Introduction

Design and Technology is an inspiring, rigorous and practical subject which allows children to use creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts. Children develop broad subject knowledge by drawing on a range of cross-curricular disciplines including mathematics, science, computing, art and personal, social and emotional development. They are encouraged to become resourceful, innovative and enterprising in their ideas and solutions. Through the evaluation of past and present design and technology, they begin to develop a critical understanding of its impact on daily life and the wider world.

## What D&T looks like in our Early Years Foundation Stage (EYFS)

### Expressive Arts and Design (EAD)

In Nursery, children are able to explore and experiment with colour, design, form and function of natural and man-made materials. They use their imagination as they explore and consider what they can do with collections of materials with similar and or different properties and talk about them. They learn simple joining skills and how to use one handed tools safely, such as scissors. Children's explorations into the world of pretend play enables them to build on their experiences of the real world and transform them into something new – through complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.

In Reception, children's skills are developed to explore, use and refine a variety of artistic effects to express their ideas and feelings. They are encouraged to return and build on their previous learning to enable them to refine their ideas and develop their ability to represent them. They create collaboratively, sharing ideas, resources and skills.

### Understanding the world (UW)

In Nursery, children use all their senses in hands on exploration of natural materials, including fruit and vegetables. They explore collections of materials with similar and/or different properties, talking about what they see, whilst extending their vocabulary. They are able to investigate how things work and explore and talk about different forces they feel and observe.

In Reception they continue and extend their explorations of the natural world around them to support learning about products and environments that have been designed and made by people.

### Physical Development (PD)

In Nursery, children develop their large-muscle movements to manipulate large loose parts and mark-making on large scales. They learn to choose the right resources to carry out their own plan; and use one-handed tools and equipment safely, for example, making snips in paper with scissors, stirring and mashing with kitchen utensils as well as using their hands to manipulate malleable materials.

In Reception, children progress towards a more fluent style of moving, with developing control and grace. They develop their fine motor skills to be able to use a range of tools competently, safely and confidently.

### Personal, Social and Emotional Development (PSED)

Children select and use activities and resources (with help when needed) to help them achieve a goal they have chosen or one which is suggested to them. They learn to work together to share and develop their ideas and negotiate to problem solve.

### Characteristics of Effective Learning

- Playing and exploring – children investigate and experience things and ‘have a go’.
- Active Learning – children concentrate and keep on trying if they encounter difficulties and enjoy achievements.
- Creating and thinking critically – children have and develop their own ideas, make links between ideas and develop strategies for doing things.

Characteristics children may display which support future learning in D&T include:

- Make choices and explore different resources and materials.
- Plan and think ahead about how they will explore or play with objects.
- Guide their own thinking by talking to themselves whilst playing.
- Make independent choices.
- Do things independently that have been previously taught.
- Bring their own interests and fascinations into early years settings. This helps them to develop their learning.
- Respond to new experiences that you bring to their attention.

The EYFS curriculum at Ashfield Infant and Nursery School promotes an ethos of curiosity and questioning in a secure environment for children to be creative and build on their interests; through a wide range of materials and resources, in an open-ended way; which allows them to make choices and have confidence in their own ideas.

### **Key Stage 1**

In Key Stage One, we use project-based learning to develop children’s knowledge, understanding and skills needed to engage in the iterative process of designing and making. They will be taught:

### Design

- How to research a product (know what it is, who/what for; how/where used; materials made from
- How to design purposeful, functional, appealing products for themselves and other users based on design criteria.
- To generate, develop, model and communicate their ideas drawn from own experiences; and creating drawings, templates, mock-ups and, where appropriate, computing.
- Where appropriate, children will be challenged to explain to others in detail how they plan to construct their product.

### Make

- Select from and use a range of tools and equipment to perform practical tasks (e.g. measuring, marking out, cutting, shaping, combining and joining and finishing using a range of different methods and techniques).
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.
- Make products that move and/or have moving parts.
- Children will be challenged to apply above skills independently for other products.

### Evaluate

- Explore and evaluate a range of existing products.
- Evaluate their ideas and products as they are developed against design criteria, identifying strengths and possible changes they might need to make.
- Children will be challenged to evaluate their finalised product by answering questions about their products design features and how they were constructed; including changes they have made and reasons for these changes.

### Technical Knowledge

- Build structures, exploring how they can be made stronger, stiffer and more stable.
- Explore and use mechanisms (e.g. levers, sliders, wheels and axles) in their products.

### Cooking and nutrition

As part of their work with food, children will be taught how to prepare and cook food and apply the principles of nutrition and healthy eating.

Children will be taught to:

- Use the basic principles of a healthy and varied diet to prepare dishes.
- Understand where food comes from
- To follow health, hygiene and safety rules and be able to explain why they are in place.
- To describe textures and properties of foods and ingredients
- To think of interesting ways to decorate food they have made.
- Children will be challenged to apply above skills independently for another product.

### **Gifted and Talented**

Children who are working beyond the expected levels of Key Stage One will be challenged further by being taught to:

### Design

- Develop research skills and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes, pattern pieces and computer-aided design.

### Make

- Select from a wider range of tools and equipment to perform practical tasks.
- 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 knowledge of how to strengthen, stiffen and reinforce more complex structures.
- Understand and use mechanical systems in their products (e.g. gears, pulleys, levers and linkages)
- Understand and use electrical systems in their products (e.g. series circuits incorporating switches, bulbs, buzzers and motors)

### Cooking and nutrition

- Understand and apply the principles of a healthy and varied diet.
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Understand seasonality and know where and how a variety of ingredients are grown, reared. Caught and processed.

### **Special Educational Needs and/or Disabilities**

To overcome any potential barriers to learning in Design and Technology, some children may need:

- Alternative or adapted activities to overcome difficulties with manipulating tools, equipment or materials.
- Specific support to enable them to engage in certain practical activities, opportunities to communicate through means other than writing or drawing and help to record their design ideas into a drawing, such as a buddy system or pupil demonstrations.
- Opportunities to work in ways that avoid contact with materials to which they may be allergic.
- Time and opportunity to use non-verbal means to gain understanding about and to evaluate different products and to use this information to generate ideas.
- Additional time to complete the range of work.
- Alternative tasks to overcome any difficulties arising from specific religious beliefs they may hold in relation to the ideas or experiences they are expected to represent.

### **Marking and Assessment**

The school Marking Policy and Assessment Policy will be applied.

### **Equal Opportunities**

At Ashfield Infant and Nursery School, all children are able to take part in Design and Technology activities, contributing by drawing on their own strengths, ensuring equality of opportunity as defined in the school Equal Opportunities Policy.

## **Health and Safety**

Basic working practices in Design and Technology take into account the 1974 Health and Safety at Work Act and the Cumbria County Council Health and safety Code of Practise.

It is the responsibility of the curriculum leader to pass on any relevant Health and Safety information to all staff who teach Design and Technology.

It is the individual member of staff's responsibility to ensure that they have read and understood the information passed on to them and act on the information accordingly.

When working with tools, equipment and materials in practical activities and in different environments, including those that are unfamiliar, children should be taught to:

- Recognise hazards, assess consequent risks and take steps to control the risks to themselves and others.
- Manage their environment to ensure the health and safety of themselves and others.
- Explain the steps they take to control risks.

Children should be encouraged to:

- keep their working area as clean and tidy as practically possible.
- put equipment away tidily after use.
- use all tools and equipment correctly, safely and appropriately for the task in hand.

For further information regarding Health and Safety please see:

- School Health and Safety Policy
- Cumbria County Council Health and Safety Policy – Key Stage 1 and 2
- Cumbria County Council Health and Safety Code of Practise – Design and Technology