



The teaching of Design and Technology (DT) at Eskdale Academy

The teaching of Design and Technology at Eskdale Academy fits in with our rationale and aims for our Whole School curriculum:

They include ensuring that the curriculum:

- Has the needs of the children at the heart of everything we do
- Is based on a strong foundation of oracy
- Meets the needs of our local community
- Is full of exciting, enriching and enjoyable learning experiences
- Provides opportunities for our children, staff and parents to all learn together.
- Positively improves academic outcomes
- Prepares our children to become positive role models in and effective contributors to Society
- Gives our pupils the chance to become the very best versions of themselves.

Or in short, a curriculum which provides only the very best education, opportunities and experiences for all of our pupils.

Vision for Design and Technology (DT)

At Eskdale Academy, the aim of DT teaching is to give pupils the skills, concepts and knowledge to enable them to take part in, and contribute to, the development of today's rapidly changing world. We don't want children to just use D&T in School; we want them to develop their long-term memory so that they are prepared to take risks and devise strategies for overcoming unseen problems that they may encounter in everyday situations and the wider world.

We aim:

- 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.



Curriculum End Points

By the end of Key Stage One, we want ALL children to:

- Be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.
- work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

Pupils should be taught to:

Design

- 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 and, where appropriate, information and communication technology

Make

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

Technical knowledge

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

This will ensure all pupils are ready and able to access the Key Stage 2 curriculum and beyond.

By the end of Key Stage Two, we want ALL children to:

- be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.
- work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].



Pupils should be 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 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 [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 [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.

This will ensure all pupils are ready and able to access the Key Stage 3 curriculum and beyond.

Cooking and nutrition (KS1 &2)

By the end of Key Stage One & 2, we want ALL children to:

be taught how to cook and apply the principles of nutrition and healthy eating.

Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity.

Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.



In Key Stage 1, pupils should be taught to:

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

In Key stage 2, pupils should be taught to:

- 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.

Teaching of Design and Technology (DT)

DT is taught as part of our 'Topic based' foundation Curriculum. Objectives are progressive and sequential; teaching children an array of skills that enable them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems.

Topics are taught termly, with DT objectives fully embedded within each area. The objectives being taught in each year group can be found below.

The school uses a variety of teaching and learning styles in DT lessons, including:

- We ensure that the act of investigating and making includes exploring and developing ideas, evaluating and developing work.
- We use a mixture of direct teaching and individual/ group activities.
- Teachers draw attention to good examples of individual performance as models for the other children.
- They encourage children to evaluate their own ideas and methods, and the work of others, to say what they think and feel about them.
- We give children the opportunity within lessons to work on their own and collaborate with others, on projects in two and three dimensions and on different scales.
- Children also have the opportunity to use a wide range of materials and resources including other artists' work, educational visits and computing.

We recognise the fact that we have children of differing ability in all our classes, and so we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies which are differentiated by task, expected outcome and/or support from peers or adults.

Recording of Design and Technology (DT)

Children's design work of DT will be recorded in a number of ways at Eskdale Academy:

- Children will maintain a sketch/design book which will follow the children right through School – demonstrating the progression the children make in their skills.



- An end of topic 'exhibition' will also be used to showcase children's work;
- Photographs of work may be stored in assessment folders or displayed across School

Assessment of Design and Technology (DT)

In order to assess the children's knowledge in DT, staff will informally measure children's work against Aged Related Expectations (ARE) – ensuring all pupils have the opportunity to develop the appropriate skills and knowledge expected of them.

Monitoring of Design and Technology (DT)

Monitoring takes place regularly through sampling children's work, lesson observations and importantly talking to the children – ensuring they enjoy each subject and can recall key knowledge of what they have been taught.