



Intent, Implementation and Impact Document

Subject - Design Technology

CURRICULUM INTENT

EYFS

Children learn through first-hand experiences and need opportunity and encouragement to explore, observe, solve problems, think critically, make decisions and to talk about why they have made their decisions. During the Early Years Foundation Stage, the essential building blocks of children's design and technology capability are established. There are many opportunities for carrying out D&T-related activities in all areas of learning in the EYFS.

By the end of the EYFS, most children should be able to:

- Construct with a purpose in mind, using a variety of resources
- Use simple tools and techniques competently and appropriately, including scissors, paint brushes and cutlery
- Build and construct with a wide range of objects, selecting appropriate resources and adapting their work when necessary
- Select the tools and techniques they need to shape, assemble and join materials they are using

Outcomes

D&T-related activities in the EYFS should be appropriate to the developmental stage of the children and have some aim to develop co-ordination and control when using tools that the children will use throughout their education, including scissors, paint brushes and cutlery.

Activities should look quite different from those carried out in KS1.

Personal Outcomes

- Designing does not necessarily entail drawing and can include hand gestures, arranging and re-arranging materials and components, talking and listening of ideas.
- Context is sometimes selected by the children to enhance their play and learning
- Sometimes practical skills are taught directly to support development of design skills, and support gross/fine motor development.
- Children have frequent opportunities to explore existing products and develop practical skills with a range of materials including found objects and construction kits
- Activities are appropriate to children's prior experience and learning.

KEY STAGE 1 & KEY STAGE 2

Design and Technology gives children the opportunity to develop skills, knowledge and understanding of designing and making functional products. Creativity and innovation are nurtured through design process, and by exploring the already designed and made products within world, creating new products and solving problems in preparation to take part in the development of tomorrow's rapidly changing world. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and respond by developing ideas, with an understanding of aesthetic, social and environmental issues, as well as of functions and industrial practices. Design Technology allows them to reflect on and evaluate present and past design and technology, its uses and its impact over time.

The core curriculum for Design and Technology aims to ensure that all pupils:

- 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 and the work of others
- Understand and apply the principles of nutrition and learn how to cook

Outcomes

Key Stage 1

When designing and making, 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.

Cooking and Nutrition

- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from

Key Stage 2

When designing and making, 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

Personal Outcomes

Throughout their Design and Technology learning, pupils will work through a variety of creative and practical activities, pupils will gain the knowledge, understanding and skills needed to engage in the process of designing and making, able to apply this to in a range of relevant contexts.

As part of their work with food, pupils will be taught how to cook and apply the principles of nutrition and healthy eating. This will help the Instilling a love of cooking in pupils and enable them to develop a crucial life skill that will support them now and in later life.



Transition

Our Design and Technology Teaching is mapped out in the progression document and ensures that the transition between phases is smooth. Assessment of individual pupil's progress and skills can be shared between teachers and other settings, where necessary.

CURRICULUM IMPLEMENTATION

EYFS

Teaching of Design and Technology in foundation stage is done through high quality provision against the Early Learning Goals and pupil's individual interests and experiences. Groups and individuals are targeted as needed as part of continuous provision, building upon their prior experiences and knowledge.

KEY STAGE 1 & KEY STAGE 2

Design and Technology involves two important elements – learning about the designed and made world and how things work within it and learning to design and make functional products for particular purposes and users. The skills learned through Design and Technology lessons also help learning across the curriculum and support developing the pupils collaborative work and problem-solving skills. They are encouraged, throughout this subject, to be creative and innovative.

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts. This will ensure that all pupils develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. They are competent to 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. They are able to critique, evaluate and test their ideas and products and the work of others. That all pupils have opportunity to develop their knowledge and skills to understand and apply the principles of nutrition and learn how to cook.

CURRICULUM IMPACT

EYFS

Observations/ Drop in / Learning Walk: Observations of pupils ongoing access to selecting and using resources and developing their Design and Technology skills through exploration to be monitored termly (alternating half terms of the visits with Art). Alongside this, pupils to be given the opportunity to talk about their developing art skills and work they have produced. To reflect 'pupil voice' for this subject. Collection of evidence of pupils learning and creative work to be part of this also.

Policy Review: Review to be conducted as and when required – ensuring links to EYFS Exceeding outcomes.

Staff / Pupil Voice: Pupil voice to be part of Observations/Drop in/Learning Walk and fed back to staff.

Assessment: Ongoing assessment using EYFS Assessment tool.

Key Stage 1 & Key Stage 2

Observations/ Drop in / Learning Walk: One of these to be carried out termly (alternating half terms of the visits with Art). Alongside this, pupils to be given the opportunity to talk about their developing art skills and work they have produced. This will reflect 'pupil voice' for this subject and be used to move the subject forward with the pupil's ideas/ gaps in learning being incorporated. Pupil/Teacher discussion of sketchbooks in KS2 to be part of Observations/ Drop in / Learning Walks.

Policy Review: Review to be conducted as and when required.

Staff / Pupil Voice: Pupil voice to be part of Observations/Drop in/Learning Walk and fed back to Staff.

Assessment: Assessment of art to be monitored throughout the year and provide information for pupil's transition into new year group/key stage – using target tracker. Progression of skills document to be used by teacher's for assessment of skill coverage within their year group/key stage.