

DESIGN AND TECHNOLOGY POLICY

Introduction

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. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

This policy follows the Early Years Foundation Stage Early Adopter Framework (September 2020) and the National Curriculum Framework (July 2014).

Aims for 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 using a range of taught skills, e.g. chopping, grating, rolling, kneading.

Aims for Teachers

- To provide a range of activities to develop the children's capability and confidence in their own ideas.
- To allow all pupils to have equal access to design and technology and to experience success and enjoyment in their design and technology work.

❖ ATTAINMENT

EYFS

Children at the expected level of development (Early Learning Goal) will:

Physical Development...

- use a range of small tools, including scissors, paintbrushes and cutlery.

Expressive Arts and Design: Creating with materials

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- Share their creations, explaining the process they have used
- Make use of props and materials when role playing characters in narratives and stories

By the end of Key Stage 1 children are expected 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 such as 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

Develop Technical knowledge

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

Cooking and Nutrition

As part of their work with food, pupils should 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.

By the end of the EYFS children at the expected level of development will:

- use a range of small tools correctly (in the kitchen)
- safely use and explore a variety of tools and techniques (in the kitchen)
- manage their own basic hygiene and personal needs, including understanding the importance of healthy food choices.

By the end of Key Stage 1 children are expected to:

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

Planning and Organisation

- A detailed scheme of work allows progression through a range of design and technology experiences, and increases the challenge made to the children for quality and knowledge.
- There will be opportunity for children to work in a number of different ways according to the subject matter being covered and the planned learning objectives.
- Children should complete one design and technology project each half term as well as cook at least twice a year during whole school activities. Each year group will also provide cooking opportunities throughout the year dependent on the topic they are learning about.
- Formative assessment is used to track each child's progress throughout each year.
- An effort and attainment mark about the child's design and technology ability will be made annually to parents in the individual report for children in Key Stage 1. An attainment mark measured against the Early Learning Goals will be given to parents in the individual report for children in the EYFS.

Resources

- Design and technology resources are located within each unit. There is also a central resources cupboard, which is located by the main hall.
- The school also has a children's kitchen, which is kept clean and fully stocked with

cooking equipment.

- The Nursery resources and equipment are located in the trolley next to the Design and Technology table to enable continuous provision for the children. Additional resources are located in the Nursery resource area.
- The design and technology co-ordinator is responsible for overseeing the care of design and technology equipment and the upkeep of the children's kitchen.

Health and Safety

- The safety of the children is the direct responsibility of the class teacher. It is important to teach the safe use of tools and equipment and insist on good practice.
- The children's kitchen must always be cleared after use and the correct behaviour must be observed.
- Children should be taught to recognise hazards to themselves and others. We will follow the established practice in the use of electrical appliances, for example, glue guns.

Equal Opportunities

- Every child will have equal entitlement to the design and technology curriculum regardless of gender, race, disability or social background.
- Further reference should be made to the school's Equal Opportunity Policy.

❖ PROGRESSION

Progression in design and technology will be achieved by:

- The provision of an increasing range of materials and tools.
- Allowing the pupils a greater degree of control where choices concerning tools and techniques are required.
- Increasing expectations regarding the complexity of the pupils' plans and the quality of the finished product.
- An increasing expectation for pupils to draw on existing knowledge and understanding.
- There is also a progression of designing and making skills set out in the end of key stage level descriptors.
- School have adopted the Design Technology Association 'Planning on a Page' planning tool for core DT work in KS1
- Planning for DT work across Early Years ensures that children have experience of a wide range of design and make projects linked to children's interests and topics. Children are taught key DT skills according to their level of development across the Early Years and KS1.

❖ ASSESSMENT AND RECORD KEEPING

In Early Years, photographic evidence of children's DT projects are saved in the class files in the gallery. In addition, staff may make observations of children's ideas, thought processes and skills when carrying out projects or practising skills.

In KS1 evidence of developing DT skills is collected photographically and through DT planning. In addition, staff complete their class KS1 foundation assessment booklet every half term.

RESOURCES

Each unit has a storage trolley/cupboard containing the technology equipment required to meet the skills identified in the progression. Stocks of materials are kept in the main technology cupboards and each year group will have a basic stock of consumables.

Each year group will be responsible for re-ordering consumable stock and replacement tools when they require them for their projects.

Items stored centrally

Cotton reels
Plastic tubing
Elastic bands
Lolly sticks
Cardboard wheels
Sand paper
Buttons
Balloons
Balsa wood
Round and square dowel
Split pins
Art Straws
Match Sticks
Felt/Material

Unit Stores

Glue guns
Glue sticks
Craft Knives
Vice
Drill stand
Hacksaw blades
Bench hooks

TOOLS

Reception

Hammers
 Hacksaws
 Vice
 Bench hooks

Year 1

Hammers
 Hacksaws
 Vice
 Bench hooks
 Drills
 Balloon pump
 Screw drivers

Year 2

Hammers
 Hacksaws
 Vice
 Bench hooks
 Drills
 Balloon pump
 Screw drivers
 Drill bits
 Steel ruler
 Fabric scissors
 Pliers

Rasp
 Wood glue

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