

RIVERVIEW INFANT SCHOOL



Design Technology Policy

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Design Technology Policy

Riverview Infant School Design Technology Policy

Vision

'Growing together for the future'

Ethos & Common purpose

'All children will reach their academic and personal potential irrespective of gender, race, disability or background'

Rationale for Design and Technology

Design and Technology is a subject where children's capability in designing and making is developed through combining their designing and making skills with knowledge and understanding. At Riverview Primary, we view Design and Technology as a subject, which allows children to apply their knowledge and understanding in a creative way to design and make products.

"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"

(National Curriculum Document 2014)

Aims

The national 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.

Key Stage 1

Pupils should be taught about:

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 [for example, the home, school, leisure, culture,

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enterprise, industry and the wider environment]. 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.

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.

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Pupils should be taught to:

Key stage 1

- 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 and Learning

Design Technology is taught within the school's own Creative Curriculum as part of our topic work. The school uses a variety of teaching and learning styles in design technology lessons. We do this through a mixture of whole-class teaching and individual or group activities. Within lessons, we give children the opportunity to work both on their own and into collaborate with others, listening to other children's ideas and treating these with respect.

Each year group will teach a number of key skills which build upon previous learning, which are designed to increase pupil's understanding of design technology concepts such as designing, making and evaluating their products.

Resources provided for lessons should include ICT, photographs, materials, posters, books, artefacts, videos, maps and visitors/experts.

Assessment for Learning

Teacher assessment takes place throughout each topic. At the end of each unit, assessment against specific criteria are completed within Sonar. The children's performance and achievement is measured as Below, Just At, Securely At, Above or significantly above. This assessment is recorded three times a year but formative assessment is on-going. (See Assessment Policy).

Assessment is carried out using:

- Observations of pupils as they work
- Discussion as they work
- Oral questioning to encourage discussion
- Self-evaluation of written work

Differentiation

In all classes, there are children of differing abilities and age. We recognise this fact and provide suitable learning opportunities for all children (including those who may be academically more able (AMA) or those who have additional needs (AEN) by matching the challenge of the task to the ability of the child. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

The subject co-ordinator will liaise closely with the Assistant Head Teacher for Inclusion to ensure that all our children have differentiated access to Design and Technology, including provision of special resources or equipment where necessary and possible.

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Monitoring

The design technology subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in design technology. The subject leader is responsible for supporting colleagues in the teaching of design technology, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school.

A display of design and technology work will be visible in classrooms. This will include drawings, patterns, quick models and final products to demonstrate to parents the whole and making process.

Teachers will be asked to identify a child working at a specific level and send some examples of their work, to the subject co-ordinator.

Resources

All resources for Key Stage 1 are held within the design technology store cupboard unless specifically order through subject co-ordinator for a particular product.

All resources will be renewed and replaced as appropriate, with consideration given to topics within all areas of learning across the Key stages.

- A limited range of materials and tools will be provided in the DT cupboard including: paper, card, reclaimed materials, textiles, square section wood, dowelling, wheels, construction kits, snips, scissors.
- Food resources, tools and equipment are kept in the DT cupboard and the food will need to be ordered through Subject Co-ordinator and will be sent directly to the teacher who requested the products.

Health and Safety

Health and Safety Teachers will always teach the safe use of tools and equipment and insist on good practise.