

Woolenwick Junior School

Design and Technology Policy

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Created by	school
Responsibility of	School Improvement committee
Reviewed by	Diane Hay
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Cycle	3 years
Approved by Governor with delegated powers	Laurie Chester
Policy will be published	Website

Version History

Version	Amendments	Date	Author
V1	Original document	May 2016	Diane Hay

Aims and Objectives

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.

The aims of design and technology are 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.

Design and technology curriculum planning

At Woolenwick Junior School, through a variety of creative and practical activities, children will be taught the knowledge, understanding and skills needed to engage in the process of designing and making. As part of their work with food, children will be taught how to cook and apply the principles of nutrition and healthy eating.

We carry out the curriculum planning in design and technology in two phases: long-term and short-term. The long term plan maps out the units covered in each term during the key stage. The design and technology subject leader works this out in conjunction with the DT teacher, matching tasks to year group topics.

Our PPA teacher plans for each design and technology lesson. These list the specific learning objectives for each lesson and detail how the lessons are to be taught. The Design and Technology teacher keeps these individual plans, and the DT teacher and subject leader often discuss them on an informal basis.

We plan the activities in design and technology so that they build upon prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

Design and technology has relevance across the curriculum and links with other subjects, particularly Science, Art, ICT and English. Activities will be planned to ensure continuity and progression throughout the Key Stage.

Children will work in a range of relevant contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment.

When designing and making, the children will 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 (such as 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.

In addition, the children will explore:

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 (e.g. series circuits incorporating switches, bulbs, buzzers and motors); apply their understanding of computing to program, monitor and control their products.

Food 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.

Inclusion

Where appropriate, teachers will provide differentiated resources and additional classroom support to ensure that all children have sufficient access to the Design and Technology curriculum. Appropriate tools and equipment will also be provided.

Health and safety

It is expected that all staff familiarize themselves with the risk assessment for the use of the food preparation and cooking area. They should be mindful of health and safety during all technology activities, be competent in the use of any tools, make sure supervision of children is adequate for the tasks being undertaken and ensure that safe practice is carried out at all times.

Assessment

By the end of each key stage, children are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Assessment of Design and Technology is based on teacher assessment and will be tracked and reported to parents at least annually.

Monitoring and Evaluation

The Design and Technology Subject Leader will monitor the provision of D &T within the school through observations and looking at teacher's planning to ensure that a good coverage and progression is being met.