

Parsloes Primary School



Design and Technology Policy

Submitted for approval by Governing Body: January 2022

Lauren Pearce
(Head Teacher)

Richard Hunter
(Chair of Governors)

Tasleema Omarjee
(Design and Technology Lead)

Spurling Road
Dagenham
Essex
RM9 5RH
02082704925

INTENT:

At Parsloes Primary School we believe that a high-quality Design and Technology curriculum uses the creativity and imagination of the children. The hands-on lessons encourage pupils to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. Through the evaluation of past and present design and technology, the pupils should develop a critical understanding of its impact on daily life and the wider world. Design and Technology links to other subjects, such as mathematics, science, computing and art, which enables rich opportunities for engaging experiences.

VISION:

The Design and Technology curriculum is an integral part of the National Curriculum which enables our children to learn through:

- technical vocabulary
- hands-on activities from researching ready-made products through to designing, making and then evaluating
- designing and creating products using a range of techniques and materials
- designing products with a user in mind
- progression of methods and techniques, e.g. joining, adding stability to structures
- working in collaboration with others, thinking about the design of products with purpose for user in mind (real-life)
- thinking about the design of products with purpose for user in mind (real-life), source of materials that will be used (environmental impact)
- building confidence, sharing ideas and thoughts on product design, thinking towards the future
- thinking towards the future, aspirational ideas for children's futures (career prospects) and their sense of achievement

At Parsloes, we can achieve this vision by:

Following the National Curriculum through the adaptation of 'Projects on A Page' documents from the Design and Technology Association. Children design products with a purpose in mind and an intended user of the product. Food technology is implemented across the school with children developing an understanding of where food comes from, the importance of a varied and healthy diet and how to prepare meals using a range of ingredients, whilst considering the location of the source of ingredients used and any possible environmental impact.

Through a variety of creative and practical activities, children are taught the knowledge, understanding and skills needed to engage in the process of research, design, make and evaluate. Design and Technology projects are delivered with a clear structure, which includes challenging students at all levels. Children are able to explore a range of existing products and formulate opinions on these, in order to make design decisions for their own products and they will explore materials, components, mechanisms, control systems and structures whilst considering health and safety aspects for practical activities. Skills that are taught will assist with learning across the curriculum in Science, Maths and Computing.

TEACHING AND LEARNING:

Planning:

Design and Technology that is taught is framed by the objectives as outlined in the National Curriculum:

By end of Key Stage 1:

Pupils will be taught through a variety of creative and practical activities, teaching them 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 and school, gardens and playgrounds, the local community, industry and the wider environment).

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.

By end of Key Stage 2:

Pupils will be taught through a variety of creative and practical activities, teaching them 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, 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. Pupils should be taught to:

By end of Key Stage 1

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

By end of Key Stage 2

- 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.

Any lessons that involve food or cooking will adhere to a risk assessment and staff will ensure that the pupils' allergies are looked at in preparation to these lessons.

ASSESSMENT AND MONITORING:

Assessment is based around the Big Question for each unit of work. Each Big Question is linked to the key knowledge and skills taught throughout the unit. Teachers will monitor progress and attainment throughout the unit using a range of sources, such as, observation, discussion and recorded work to ensure accurate judgements. A class assessment grid is used throughout the unit to inform planning and record end of unit assessment judgements for pupils.

SEND:

Teachers have high expectations of all pupils. This includes pupils of all abilities, social and cultural backgrounds, those with disabilities and Special Educational Needs. Planning is differentiated and learning is supported appropriately so that all children can participate and have full access to the curriculum in order to reach their full potential.

REMOTE LEARNING:

Please see the Remote Learning Policy and the Covid addendum for more information.