Approved by LGB	Jan 23
Review Date	Jan 25
Cycle	Biennial

Design and Technology Policy

Intent

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

Purpose

This policy aims to show how our school intends to fulfil its legal obligation to deliver the National Curriculum and how and where we can go beyond that to create a stimulating and existing curriculum which will meet the future needs of the children.

Implementation

Design and Technology is a crucial part of school life and learning and it is for this reason that as a school we are dedicated to the teaching and delivery of a high-quality Design and Technology curriculum.

This is implemented through:

- A well thought out, whole school, yearly overview of the DT curriculum which allows for progression across year groups in all areas of DT (textiles, mechanisms, structures, food and electrical systems)
- Well planned and resourced projects providing children with a hands-on and enriching experience
- A range of skills being taught ensuring that children are aware of health and safety issues related to the tasks undertaken
- Teachers being given ownership and flexibility to plan for Design and Technology; often teaching DT as a block of lessons to allow the time needed for the children to be critical, inventive and reflective on their work.
- Each project from Year 1 to Year 4 addressing the principles of designing, making, and evaluating and incorporating relevant technical knowledge and understanding in relevant contexts.
- Pupils being introduced to specific designers, chefs, nutritionists, etc. helping to engender an appreciation of human creativity and achievement and increase the cultural capital from which they can draw in the future.

As a school, we promote Design and Technology (cookery) during after school club.

Subject Content

Early Years Foundation Stage
During the EYFS pupils explore and use a variety of media and materials through a combination of child initiated and adult directed activities. They have the opportunities to learn to:
Use different media and materials to express their own ideas
Use what they have learnt about media and materials in original ways, thinking about form, function and purpose
Make plans and construct with a purpose in mind using a variety of resources
Develop skills to use simple tools and techniques appropriately, effectively and safely
Select appropriate resources for a product and adapt their work where necessary
Cook and prepare food adhering to good health and hygiene routines

Key stage 1

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 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.

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

Key stage 2

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,

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]

Design and technology is taught thematically as an integral part of a 'topic'. Some topics lend themselves to subjects more readily than others and because of this the class teacher is free to decide how the curriculum time of each subject will be devised. Some elements of the subject may benefit from 'chunking' where students will receive a short, intensive concentration of lessons. Occasionally staff will arrange extra-curricular events and/or thematic days.

Impact

Children will have clear enjoyment and confidence in Design and Technology that they will then apply to other areas of the curriculum. Through carefully planned and implemented learning activities, the pupils develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. They gain a firm foundation of knowledge and skills to see them equipped to take on further learning after they leave Rushton. Pupil's skills and knowledge are assessed ongoingly by the class teacher.

Cross curricular themes and links with other curriculum areas

Design and Technology has many links with other areas of the curriculum and in planning topic work teachers will link the subject to other appropriate curriculum areas, mainly Forest School.

However, it may be necessary to teach certain elements of the design and technology curriculum as separate lessons.

Homework

Children may be asked to do small amounts of work at home as and when required. The activity will be linked to a skill that has been taught or to consolidate knowledge further or to carry out research.

Display

Children derive much pleasure and benefit by having their work displayed. When possible, samples of work are displayed within the classroom or on other display boards throughout the school.

Rushton is a dyslexia friendly school

As a dyslexia friendly school, we will provide quality teaching, differentiated as needed. We will identify and respond to unexpected difficulties, actively working to include all pupils so they can achieve in all areas of learning. We feel that more children are successful when taught using dyslexia friendly teaching methods. By teaching in this way, we aim to make our teaching and learning fully accessible to all children. We will try to discover how the child learns best and use a variety of multisensory activities including practical activities and ICT, using eyes, ears, speech, fingers, to stimulate learning. We aim to enable children to use their strengths for learning while developing the areas they find more difficult.

Special Educational Needs

Teachers ensure that all pupils make progress and gain positively from the lesson. Lessons are planned so that all pupils can be included with differentiated tasks to suit pupils' varying abilities. Pupils who are very able will be challenged with extended activities.

Equality

We aim to choose a balance of activities that will appeal to all genders and backgrounds and work hard to help all children develop a positive attitude towards Design and Technology. Multicultural education seeks to prepare pupils for life in a world where they live and work with people of different culture, religions, languages and ethnic origins. Design and Technology's role will help pupils to build an informed and balanced view of the world and their place within it.

Assessment, recording and reporting

Assessment of children's work is a continuous and ongoing process and records of their attainment and samples of work are kept by the class teacher. Parents are encouraged to come into the classroom to look at their child's work and to informally discuss their child's progress at any time during the year.

Careers

The school will work to encompass careers education and guidance into subjects across the curriculum at an age-appropriate level. The school will ensure that pupils have the opportunity to learn how various subjects aid their entry into a wide range of careers and enable them to be more effective workers. Teachers will link the curriculum learning with careers and future

learning possibilities. The importance of literacy, numeracy and digital awareness will be emphasised to help pupils understand the skills they will need for the future.

Monitoring and review

This policy will be monitored and reviewed on a biannual basis collectively by all teaching staff. The headteacher will review the teaching of Design and Technology in the school and development improvement plans if necessary.