RIVERSDALE PRIMARY SCHOOL

Design and Technology Policy

Date:

Review Date:

Signed: _____ (Governor)

Signed: _____ (Headteacher)

AIMS AND OBJECTIVES

At Riversdale, we believe that all children should have the opportunity to design for a purpose. The National Curriculum states that "*high-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation."* Through the key areas of textiles, food technology and resistant materials, our curriculum covers key skills needed within design and technology. Our curriculum aims to develop the creative, technical, and practical expertise needed to perform everyday tasks confidently and to participate successfully in a world that is increasingly reliant on technology.

Children acquire and apply knowledge and understanding of materials and components, mechanisms and control systems, structures, existing products, quality and health and safety. Another important skill is to accept and discuss the evaluation from others. Furthermore, pupils will build on their understanding and apply the principles of nutrition and learn how to cook, building on these skills from Key Stage 1(DfE, 2014:234).

Regardless of gender, ethnic origin, or starting point, we specifically aim 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.

IMPLEMENTATION

Within Design and Technology there are three core activities children will engage with. These are:

- Activities that involve investigating and evaluating existing products.
- Focused tasks in which children develop specific knowledge and skills.
- Designing and making activities in which children design and make an item for a purpose. Meeting a need or want.

<u>Cooking and Nutrition</u>

At Riversdale, we ensure that pupils address healthy eating and the skills needed to achieve this. Across the school pupils will take part in food technology lessons in which new skills will be learnt. Each class looks at key learning concepts surrounding food, cooking techniques and key vocabulary. The curriculum has been designed in such a way that new cooking techniques are introduced at appropriate stages for each year group. This leads towards a final recipe. Pupils are encouraged to taste different ingredients, discuss where they have come from and to think about any dietary needs their recipes may need to be adapted for. The learning that takes place is cross-curricular with Science, PSHE, Maths and English as different aspects of cooking and nutrition are addressed.

IMPACT

By creating a Design and Technology curriculum that has a clear progression from Year1 to Year 6, with skills being covered in the 'Knowledge and understanding of the world' area of the Early Years curriculum., pupils will develop an in-depth understanding of D&T in a cross-curricular way.

They will:

- Build an understanding of technology and how it has impacted how we live and function today.
- Show awareness of the Sustainable Development Goals and the impact we as humans are having on the world.

- Have a solid understanding of the Design, Make and Evaluate process.
- Develop key skills that will help with meeting a 'need' or a 'want'.

Through the structure of recording work as a scrapbook, the pupils accurately record their learning journey through the Design, Make and Evaluate process. The same clear progression is shown in books from year 1 to year 6.

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].

At the end of Key Stage 1 most pupils will be able 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.

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].

By the end of key stage 2, most children will be able 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.

MONITORING AND REVIEWING

The monitoring of the standards of the children's work and of the quality of teaching in design and technology is the responsibility of the subject leader. The subject leader is also responsible for supporting colleagues in the teaching of DT, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The subject leader gives the head teacher an annual summary report in which s/he evaluates the strengths and weaknesses in the subject and indicates areas for further improvement. The subject leader has specially allocated time for carrying out the vital task of reviewing samples of the children's work and for visiting classes to observe the teaching.

This policy will be reviewed at least every two years.