Design & Technology Policy

December 2024

Version 1.3

Approved: 20.12.24

Next review date: December 2026

1 Aims and Purpose

1.1 Design and technology offers opportunities for children to:

- *Develop their designing and making skills.*
- *Develop knowledge and understanding.*
- *Develop their capability to create high quality products combining their designing and making skills with the knowledge and understanding.*
- *Nurture creativity and innovation through designing and making.*
- *Explore values about and attitudes to the made world and how we live and work within it.*
- *Develop an understanding of technological processes, products and their manufacture, and their contribution to our society.*

2 Content

2.1 In design technology, children acquire and apply knowledge and understanding of:

- *Materials and components.*
- *Mechanisms and control systems.*
- *Food preparation.*
- *Structures.*
- *Existing products.*
- *Quality*
- *Health and safety.*

2.2 Children will:

- *Develop designing skills, including generating ideas, clarifying a task, creating design proposals, communicating ideas, planning and evaluating.*
- *Acquire and refine the practical skills associated with making, including working with materials and components, tools and processes, e.g. planning, measuring and marking out, cutting and shaping, joining and combining, finishing and evaluating.*
- *Apply scientific skills, e.g. predicting and fair testing.*
- *Apply mathematical skills, e.g. measuring to an appropriate number of decimal places, drawing and interpreting tables, graphs and bar charts.*
- *Apply IT skills, e.g. making things happen by the use of control, handling information through the use of a database or spreadsheet.*
- *Apply art skills, e.g. investigating texture and colour or recording visual information.*

3 Values and attitudes

3.1 Children will:

- *Work both independently and with others, listening to others' ideas and treating these with respect.*
- *Be creative, flexible and show perseverance.*

- *Critically evaluate existing products, their own work and that of others.*
- *Develop a respect for the environment and for their own health and safety and that of others.*
- *Develop an understanding that all people are equal regardless of age, race, gender or ability and that there needs to be alternative solutions to meet the needs of individuals and groups of people.*
- *Find enjoyment, satisfaction and purpose through designing and making.*
- *Apply value judgement of an aesthetic, economic, environmental, moral, scientific and technical nature.*

4 Expectations

4.1 By the end of key stage 1 most children will be able to:

- *Use a wide range of materials to design and make simple products.*
- *Select materials, tools and techniques and explain their choices.*
- *Understand simple mechanisms and structures.*
- *Measure, assemble, join and combine materials in a variety of ways using basic tools safely.*
- *Follow safe procedures for food safety and hygiene.*
- *Investigate and evaluate simple products, commenting on the main features.*

4.2 By the end of key stage 2, most children will be able to:

- *Use knowledge and understanding of a range of materials, components and techniques to design and make products.*
- *Evaluate work as it develops and if necessary, suggest alternatives.*
- *Produce designs and plans which list the stages involved in making a product and list tools and materials used.*
- *Accurately measure, mark, cut, join and combine a variety of materials, working safely and recognising hazards to themselves and others.*
- *Understand the use of electrical and mechanical systems and more complex structures.*
- *Understand and explain how to keep themselves and others safe when preparing food.*
- *Evaluate what is or is not working well in a product.*

5 Links with other areas of the curriculum

5.1 **English**

Ability in reading and writing is essential for collecting information and source material, finding out about products, communicating ideas, making notes and drawings for later reference and following instructions in design technology. Evaluating existing products requires children to articulate their ideas and to compare and contrast their views with others. Good oral communications is vital in group work on a task, where children may be brainstorming ideas, giving instructions, justifying their own views or intentions, explaining how something might work and using technical vocabulary to describe what they are intending to do.

5.2 **Mathematics**

Opportunities occur for children to apply their mathematical skills through:

- *Choosing and using appropriate ways of calculating measurements and distances.*
- *Checking the results of calculations for reasonableness*
- *Using an appropriate suitable degree of accuracy for the context*
- *Suggesting suitable units and measuring equipment for the task in hand*
- *Using fractions and percentages*
- *Reading and interpreting scales*
- *Collecting, representing and interpreting data*
- *Identifying and describing position, direction and movement*

5.3 **Other Subjects**

Where there are opportunities for links with other subjects, notably computing, science, history, geography and art, these are made explicit in each of the units. There is a detailed plan showing the links with other curriculum areas and with other units within the scheme of work.

6 Progression

6.1 Progression in design technology can be characterised by:

- *An increase in knowledge, skills and understanding*
- *Moving from familiar to unfamiliar concepts*
- *Meeting needs which demand more complex or difficult solutions*
- *An increase in a child's own understanding of their learning*

7 Health and Safety

7.1 Personal: Hair to be tied back, aprons to be used for paint, glue or food activities.

7.2 Spills: All spills to be wiped up

7.3 Tools: Children will be taught the right way to use equipment, how to carry it and store it safely. Only one Stanley knife should be used in a class and the child should be very carefully monitored during their use of it. The knife should be kept in a safe and secure place.

7.4 We are currently using the scheme 'Projects on a page' as a framework for our DT curriculum.

8 Design Technology Curriculum Plan

8.1 This can be found on a separate document.

9 Tools and equipment

9.1 Equipment is centrally stored in the Science and Technology cupboard.

10 Inclusion

10.1 We ensure that the curriculum is available to all pupils, with equal appropriate access regardless of sex, race, religion or ability.

11 Record Keeping and Assessment

11.1 Children will plan, design, evaluate and assess their work in their topic books or on paper where teachers will make comments and suggestions for change. Photographs are usually taken of finished results and sometimes during the making of a project. Children are given the opportunity to self-assess their own work and assess the work of their peers, this can be written or verbal. Relevant details of assessment are kept by each class teacher.

12 Staff Training

12.1 Staff will be encouraged to attend courses and review resources. The DT Subject Leader will have access to specific training to support and develop their role.

13 Role of the Subject Leader

13.1 The Subject Leader is responsible for the monitoring and development of the subject throughout the school.

13.2 This includes:

- *attending cluster group meetings and relevant courses*
- *working alongside colleagues at both key stages*
- *updating resources/resource boxes*
- *checking medium term plans and advising on best practice*
- *monitoring progression*
- *looking at project books and talking to pupils about their work*

14 Dissemination

14.1 The Policy is available on the school web site and a paper copy is available on request from the school office.

15 Reviewing the Policy

15.1 This policy will be reviewed bi-annually by the Design & Technology Subject Leader and monitored by the Link Governo to ensure that the policy is relevant and up to date.