**Aims and Objectives**

Our aims in the teaching of design and technology are to allow pupils to:

• Develop design and making skills.

• Develop knowledge and understanding.

• Use a wide range of tools and materials.

• Learn about health and safety and protective measures.

• Work individually and within a group in a variety of contexts.

• Develop the capability to create products of a high standard through skills and understanding.

• Promote creativity and innovation.

• Explore the man-made world and encourage discussion of how we live and work within it.

• Develop an interest in and understanding of technological processes and the role of manufacturing in society.

• Learn the principles of nutrition, healthy eating and how to cook.

**Teaching and Learning Style**

Principles for effective teaching include:

Setting tasks in the context of pupils’ prior knowledge.

Promoting active learning.

Inspiring, exciting and motivating pupils to know more.

Strategies for effective teaching include:

The use of a variety of teaching methods including, whole class work, small group study, investigative work, practical work and individual study.

Ensuring the method used suits the purpose and needs of the children.

Providing a meaningful context and clear purpose when assigning tasks.

Including investigative, disassembly and evaluative activities.

Using focused practical tasks to help the children make and evaluate products.

Ensuring tasks are built on skills and understanding.

**Learning environment**

Activities are organised at the teacher’s discretion and according to the availability of materials. Design and technology activities may be carried out individually, as a small or large group, or as a whole class activity.

Teachers will make provision for varying learning styles to be utilised.

**Design and Technology Curriculum Planning**

We use the national curriculum scheme of work, supported by the Essentials Curriculum, for Design and Technology as the basis for our curriculum planning. Our curriculum planning is in three phases (long-term, medium-term and short-term). Provision for Design and Technology activities is part of the overall topic planning completed for each class on a termly basis. We plan the topics in Design and Technology so that they build upon prior learning. Children of all abilities have the opportunity to develop their skills and knowledge in each area and, through planned progression built into the scheme of work, we offer them an increasing challenge as they move up the school.

**Early Years Foundation Stage (EYFS)**

The Foundation Stage focuses on the skills needed to complete construction materials and food hygiene topics in readiness for Key Stage 1 curriculum. A wide variety of activities are planned throughout the year based around the topics being covered in other areas of the curriculum and time of year.

**The National Curriculum Key Stages 1**

**Design**

 Design purposeful, functional and 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 accurately.

Select from and use a 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, such as levers, sliders, wheels and axles, in their products.

 **Cooking and nutrition**

 Use the basic principles of a healthy and varied diet to prepare dishes.

 Understand where food comes from.

**The National Curriculum Key Stage 2**

**Design**

To use research and identify criteria to inform the design of innovative, functional and appealing products that are fit for purpose, aimed at particular individuals or groups.

To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross –sectional and exploded diagrams, prototypes, pattern pieces and computer aided design (CAD).

**Make**

Select from and use a wider range of tools and equipment to perform practical tasks 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 to shape the world.

**Technical knowledge**

Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Understand and use mechanical systems, such as gears, pulleys, cams, levers and linkages, in their products.

Understand and use electrical systems, such as series circuits incorporating switches, bulbs, buzzers and motors, in their products.

**Cooking 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.

**The subject leader**

The school’s appointed subject leader will oversee the continuity of the subject and the progression of teaching and learning within medium-term plans.

They will monitor the quality of teaching and the standard of work produced.

Evidence will be kept from year to year.

The subject leader will offer support to colleagues and share their expertise and experience.

They will encourage staff and pupils to be creative and advise teachers on teaching methods they may wish to explore.

**Teaching Design and Technology to children with SEN**

At our school we teach Design and Technology to all children, whatever their ability. Design and Technology allows children to express their ideas creatively and we ensure they have access to the full range of activities involved to develop their design and making skills.

**Assessment**

Teacher assessment in design and technology can measure many different aspects within the design process. Teachers will assess pupils’:

Knowledge of tools, materials and equipment.

Ability to record and communicate their design ideas in a clear manner

Personal qualities and attitudes towards their work.

Ability to explain what they have created and how.

Ability to use tools and materials safely and effectively.

Ability to evaluate both their work and the work of others.

The majority of assessments conducted will be through observation and discussion.

 Assessments will be recorded in the year end reports to parents.

A selection of work may be retained as evidence or photographed for this purpose.

**Resources**

Each classroom has basic design and technology resources maintained by the individual teachers.

Food and technology resources are kept in the staff room.

**Health and safety**

Certain health and safety concerns are inherent with design and technology, including the storage of materials and tools and the use of equipment within lessons.

Children are instructed in the correct use of equipment and tools and the specific dangers of using heated or sharp resources.

Children are supervised at all times during activities.

An adult must use a glue gun at all times. The use of glue guns will be considered alongside all viable alternatives such as adhesive tapes, blue tack, string and other fasteners, to ensure the most suitable materials are used for each project.

A fire safety blanket must be kept with the cooker at all times.

Children must follow hygiene procedures and obey rules during cooking sessions.

**Monitoring and Review**

The Design and Technology subject leader is responsible for monitoring the standard of the children’s work and the quality of teaching in DT. The DT subject leader is also responsible for supporting colleagues in the teaching of DT, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject.

Date: 27.9.19