

# Grimsargh St Michael's C of E Primary School



## Design Technology Policy

*Let your light shine before people so that they may see your good works and glorify your Father in heaven (Matthew 5: v.16)*

Inspiring, believing and achieving in our loving Christian community

Our goal for Design Technology education is that children are able to apply their knowledge, experience and practical skills to design solutions to real-world problems, through three 'Big Ideas':

- **Skills and expertise-** I learn and apply practical and technical skills
- **Design-** I use creativity, experience and experimentation to design new products and solve problems.
- **Evaluate-** I evaluate my designs and products in order to improve them.

This policy reflects the schools' values and philosophy in relation to the teaching and learning of Design and Technology at Grimsargh St Michael's C of E School. It provides a framework within which staff can operate and gives guidance on planning, teaching and assessment. This policy should be read in conjunction with the Scheme of Work for Design and Technology, and the 'Key Learning in Design and Technology' descriptors per year group, developed by LCC (2014), which details what pupils in each year group should be taught.

This document is intended as a guide for all teaching staff, HLTA's, Teaching Assistants, anyone with classroom responsibilities, the school governors and parents of pupils of Grimsargh St Michael's C of E School. Copies of this Design and Technology Policy are available for parents and can be requested at the school office. (Staff can access this document on the school network).

### Aims

Design and Technology prepares pupils to participate in today's rapidly changing technologies. They learn to think and intervene creatively to improve quality of life. The subject calls for pupils to become autonomous and creative problem solvers, as individuals and members of a team. They must look for needs, wants and opportunities and respond to them by developing a range of ideas and making products and systems. They combine practical skills with an understanding of aesthetics, social and environmental issues, function and industrial practices. As they do so, they reflect on and evaluate present and past design technology, its uses and effects. Through design and technology, all pupils can become discriminating and informed users of products and become innovators.

Design and technology education aims to:

- Provide opportunities for children to experience investigating designing, making and modifying, using a wide range of materials including card, textiles, construction materials and kits and food, and adopting environmentally friendly practices where possible, through recycling and reusing materials and consumables.
- Develop children's capabilities in design and technology using knowledge and skills from a wide range of other curriculum areas, making fundamental cross-curricular links.
- Create and achieve good quality products, to high standards, through practical activities, fit for their intended purpose, following lesson objectives, being mindful of the DT 'Golden Rule'.
- Encourage the use of ICT as a tool in engaging children in investigative enquiry, research for projects or study of technologies past and present or gathering resources using digital and video cameras.
- Lead children through a logical process where ideas may be transformed into objects which they continually evaluate and modify, to fit the purpose.
- Provide the opportunity to disassemble, investigate and evaluate products, in an enjoyable practical learning environment.
- Teach an understanding that the world is a fragile planet and its future depends on the way they treat the environment by discovering ways to recycle, reduce and reuse materials.
- Design and Technology also aims to develop credible thinkers who can make good choices in food, diet and lifestyle.

These aims are consistent with our school philosophy and take account of LEA Curriculum policy and National Curriculum Guidance.

### **School Development links to Diversity, uniqueness and growth mindset.**

We aim to ensure that the curriculum is enhanced by a variety of meaningful experiences to embed the children's understanding of diversity to ensure all children value uniqueness and are able to achieve their potential, through perseverance, stamina and practical hands on experience. Also, the aim of design and technology will provide extensive opportunities, including how to build confidence and resilience, to support the personal development of all children as preparation for their adult lives.

### **Objectives**

Our pupils will work towards the Key Learning in Design and Technology, 'KLIP's' (LCC 2014) statements for each discipline outlined for each age group which are appropriate to their ability.

### **Curriculum and School Organisation**

In order to achieve these aims, Design and Technology is organised into skills-based units and contributes to cross-curricular topics. Opportunities are provided for the development of skills and integration with other subjects, including Numeracy, Literacy, Science and Art.

The school has adopted the Lancashire County Council (2014) Lancashire Professional Development Curriculum (LDPS) National Curriculum Support Materials. These cross-curricular booklets advise Design and Technology topics and disciplines to be taught alongside other curriculum subjects and also dipping into the QCA produced Scheme of Work for Design and Technology.

The Design and Technology 'Golden Rule' – Product/Purpose/User should be referred to during lessons, focusing the learner back to the topic and the reason why they are developing certain items. Learning activities are sequenced to ensure progression, building on previous knowledge and understanding, and taught through direct skills teaching, providing pupils with real experience through

practical focused tasks, educational visits, the use of published resources for teacher planning, TV/Video, ICT and the interactive whiteboard.

### **Class Organisation and Teaching Style**

Within classes, pupils are taught individually, in groups or as a class when appropriate. It is recognised that through work co-operation, effective learning and understanding are promoted, but to ensure differentiation, matching and assessment children may work individually or as a class

The subject requires the provision of a range of materials and equipment to enable pupils to work in a variety of material areas. These resources are accessible to children in classrooms to encourage them to make their own choices.

### **Planning and Monitoring**

Long term and Medium Term planning is provided for each class teacher from the LCC Curriculum Planning Booklets (2014), and QCA Design and Technology scheme of work. Each teacher or HLTA, who provides cover supervision in KS2, is responsible for producing Medium Term Plans, stating the objectives to be covered in all units of work and short term weekly plans delivering the objectives and skills.

The Co-ordinator is responsible for the monitoring and implementation of the scheme of work. This is done through monitoring the evaluated medium term plans and subject scrutiny (photographic evidence of displays) and conversations with the children.

Subject planning and evaluation:

- Long Term – at whole school level, annually
- Medium Term – at class level, termly
- Short Term – at class level, weekly

### **Assessment**

Assessment using Key Learning in Design Technology 'KLIP's' is used to inform future planning and provide information about individuals throughout their time in this school.

Assessment techniques will ensure that teachers assess the on-going design process and not just the finished products or outcomes.

The techniques should include:

- Teacher observation of pupils investigating, disassembling, designing and making towards the learning objective.
- Teacher and pupil discussion and questioning
- Pupil's drawings, notes, models, comments and written work
- Artefacts made by pupils
- Pupil's on-going analysis of their achievements and evaluation on completion
- Photographs of pupils engaged in the design process
- Use of ICT as appropriate

When reviewing children's progress in Design and Technology, teachers must consider:

- Knowledge and understanding of materials and components
- Understanding of mechanisms and ICT control
- Ability to use materials and equipment safely
- Ability to develop, plan and communicate ideas
- Interest and motivation in designing and making
- Ability to appreciate and produce items of quality that meet its intended purpose

### **Record Keeping and Reporting**

Pupils work in Design books or through subject specific booklets, from Year 1 onwards, which are celebrated as a personal response and reflection of their learning outcomes. Each lesson begins with a focused learning objective, preferably based on a topic linked to the creative curriculum, and an aim for the final piece of work.

Records of pupils' achievements are kept to:

- Plan pupil's future learning
- Report progress to parents
- Maintain a record of pupil's learning
- Provide a curricular record for each pupil
- Fulfil legal requirements

### **Evaluation**

Evaluation of Design and Technology will:

- Celebrate pupil's achievements in all aspects of the stages of the scheme of work, not just the finished product.
- Ensure full coverage of the programmes of study
- Provide an opportunity discussion with pupils about their work
- Provide photographic evidence, to record work and aid teacher analysis and future planning.

### **Health and Safety**

Guidance for Health and Safety issues are provided by LCC regarding Design and Technology equipment, materials and tools. Vigilance is essential at all times, especially when potentially damaging tools (such as drills, saws, bradawls, glue guns etc ) are used. When needed only an adult should ALWAYS use a cutting/craft knife. Teachers and staff are responsible for the safe storage and use of tools and materials in their own classrooms. The Art Co-ordinator is responsible for the storage and maintenance of tools, equipment and materials in shared areas.

### **Equal Opportunities**

Our aim is that all children will have the same access to Design Technologies activities regardless of their gender, ability, including AGT pupils, race or cultural background.

To accomplish these aims we will:

- Avoid stereotyping of activities traditionally preferred by one gender.
- Study programmes of work from a range of cultures and both genders, ensuring that multicultural diversity is celebrated.
- Follow the whole school policy on Equal Opportunities in Design and Technology lessons, planning and assessment.

A register of Able, Gifted and Talented children is recorded and monitored during the year. This enables the opportunity for teachers to encourage greater depth in the mastering of skills and creating a culture of learning and applying knowledge in all design and technology projects.

### **Special Educational Needs**

Wherever practicable, provision will be made for pupils with Special Educational Needs, where it affects their ability to take part in Design and Technology lessons. Our aim is to provide a broad and balanced education for all children. It is the responsibility of the class teacher to ensure any special equipment needed for a lesson is available to such children. If teachers require any special equipment other than large or small paint brushes or left-handed scissors, they should bring this to the attention of the Art Co-ordinator or SEN Co-ordinator. To ensure all children have the opportunity to achieve

the learning objective, any special equipment that is required should be brought to the attention of the DT Co-ordinator or SENCO, to enable access to the lesson.

### **Resources and Accommodation**

Design and Technology lessons take place within the classroom environment. Most resources, materials, equipment and tools are stored in the Hall Art and Design Store cupboard. Resources and equipment are checked by the Co-ordinator and any faults or replacements should be reported when discovered. The co-ordinator is responsible for the maintenance and review of the resources. All equipment should be returned to the store cleaned thoroughly.

Resources and equipment stored in the hall:

- ✓ Balsa wood
- ✓ Beads
- ✓ Buttons
- ✓ Cam boxes
- ✓ Construction kits – KNEX, LEGO
- ✓ Construction straw
- ✓ Cotton reels
- ✓ Cutting boards
- ✓ Cutting tools
- ✓ Dowel – wooden and paper
- ✓ Elastic bands
- ✓ Electrical equipment – wire, batteries, bulbs, bulb holders, switches,
- ✓ Felt
- ✓ Glue guns
- ✓ Hole punches
- ✓ Masking tape, sellotape, insulation tape
- ✓ Plastic piping
- ✓ Polystyrene balls
- ✓ Pre-punched card for construction
- ✓ Recyclables – boxes, bottles, etc
- ✓ String
- ✓ Syringes – pneumatics
- ✓ Tools – drills, saws, bench hooks, bradawls, screwdrivers,
- ✓ Velcro
- ✓ Wheels
- ✓ Wire cutters

PPA room DT resources:

- ✓ Card
- ✓ Corroflute – corrugated plastic sheeting
- ✓ Paper products

Signed: **Mrs Alison Loughran**

Date: **January 2023**

Review Date: **July 2023**

Agreed by the Curriculum Committee: