

Grimsargh St Michael's C of E Primary School



Design and 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 and Technology education is to create 'Agents of Change' through our rigorous and practical DT curriculum. We want our children to be creative thinkers and problem solvers, so we give them opportunities to develop the skills they need to solve real and relevant problems in a variety of contexts through our three 'Big Ideas':

- **Design** - I use creativity, experience and experimentation to design new products.
- **Skills** - I learn and apply practical skills and technical knowledge in the making process.
- **Evaluate** - I evaluate my designs and products 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 in which staff can operate and gives guidance on planning, teaching and assessment. This policy should be read in conjunction with our curriculum overview, projects on a page 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.

Intent

At GSM, we recognise the importance of design and technology as a subject which helps prepare our pupils for the rigours and demands of adult life. Today's children are living in a highly developed technological society. High-quality design makes an essential contribution to the culture, aesthetics, wealth and well-being of our modern world.

Design and Technology is about practical problem solving and using materials to solve problems. The process of identifying a need, designing a solution, building a product, and testing and evaluating it, is fundamental to learning in D&T, particularly if the product is authentic and relevant. Design and Technology also prepares children to take part in the development of tomorrow's rapidly changing world. Design and Technology encourages children to become independent, resilient and creative

problem-solvers, as individuals and as part of a team. Design and Technology helps all children to become discriminating and informed consumers and potential innovators.

Our three Big Ideas, skills, design and evaluate, are the foundation of every unit of D&T we teach and inform every learning journey. Our five Golden Threads, authenticity, diversity, vocabulary, resilience and Christian values, are fundamental in our D&T curriculum units, and are reflected in what our children learn, how they work and what they create. Through our curriculum, we hope to equip children with knowledge and cultural capital, which they will need to succeed in life.

Aims

Design and technology education at GSM aims to:

- Enable children to build and apply a repertoire of knowledge, understanding and skills to design and make a range of high-quality prototypes and products.
- 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.
- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- Provide opportunities for children to be creative and innovative.
- Provide opportunities for children to evaluate processes and outcomes.
- Understand and apply the principles of nutrition and learn how to cook.
- Encourage children to deliver a good quality finish.
- Enable children to understand that the future of Earth depends on the way we treat the environment and allow them to recycle, reduce and reuse materials.

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

Teaching and Learning

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 mathematics, English, Science and Art & Design. Pupils are involved in activities which allow them to design and make products using a wide range of materials including textiles, sheet materials, construction materials, mechanisms, electricals and food. In our school, the process of Design and Technology will involve pupils in the following: design generation, skills development, planning and making and evaluating.

Within classes, pupils are taught individually, in groups or as a class when appropriate. D&T 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 their independence and allow them to make their own choices.

Progression and the Curriculum

Each year group has Design and Technology projects throughout the year which, where possible, are linked to other subject areas. These are mapped out on the subject curriculum overview and focus on progressive knowledge and skills throughout the school. Our units of work are produced by DATA Projects on a Page and reference Lancashire Key Learning Expectations. Where a bespoke unit has been created, it will follow the DME process and skills from Projects on a Page. Learning activities are sequenced to ensure progression, building on previous knowledge and understanding. Throughout children's learning journeys, UPAQ – User, Purpose, Aesthetics & Quality - is used to focus the learner on their design criteria. Key vocabulary is woven throughout our units.

EYFS plan skills time into their curriculum so that children can experience specific tools, resources, designing and making before entering Years 1-6. Design and Technology in the EYFS setting relates to the following Early Learning Goals (ELG):

- Personal, Social and Emotional Development ELG: Self-regulation work towards simple goals, being able to wait for what they want and control their impulses when appropriate; give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions.
- Fine Motor Skills ELG: Use a range of small tools, including scissors, paint brushes and cutlery. Begin to show accuracy when drawing.
- Expressive Arts and Design ELG: Creating with materials safely, use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the processes they have used.

Assessment and recording

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

End of unit evaluations are kept to records pupils' achievements. Children are assessed as being above, at or below National Curriculum levels according to the KLIP's indicators for Design and Technology. From Year 1 onwards, pupils' work in design books, design booklets or on design boards, are celebrated as a personal response and reflection of their learning outcomes. We will use photographic evidence, to record work and aid teacher analysis and future planning.

Inclusion and Equal Opportunities

Our aim is that all children will have the same access to Design and Technology 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 Deeper Learning 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

We recognise the fact that we have children of differing ability in all our classes, and therefore suitable learning opportunities for all children are provided. This is achieved through a range of strategies that are essential to developing a more inclusive curriculum:

- Setting common tasks that are open-ended and can have a variety of responses.
- Setting tasks of increasing difficulty where not all children complete all tasks.
- Providing a range of challenges with different resources.
- Using additional adults to support the work of individual children or small groups.
- ICT programmes and appropriate tools and equipment are provided

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 D&T leader or SENCo. 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 leader or SENCO, to enable access to the lesson.

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. Teachers and staff are responsible for the safe storage and use of tools and materials in their own classrooms. The D&T leader is responsible for the storage and maintenance of tools, equipment and materials in shared areas.

Resources and Accommodation

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

Signed: **Miss Amanda Jewitt**

Date: **September 2023**

Review Date: **July 2024**

Agreed by the Curriculum Committee: 27th September 2023