

ST. GREGORY'S R.C. JMI

GOVERNORS STATUTORY POLICY



Design and Technology Policy

4th December 2019

Introduction

Design and Technology encourages children to learn to think and intervene creatively, to solve problems both as individuals and as members of a team. They are taught to look for opportunities and to respond to them by developing a range of ideas and making a range of products. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators.

Definition from the National Curriculum:

“Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.” (DFE Statutory Guidance)

Aims of Design and Technology:

- to develop children’ designing and making skills, using imagination and creativity throughout
- to teach children the knowledge and understanding, within each child’s ability, that will be required to complete the making of their product,
- to teach children the safe and effective use of a range of tools, materials and components,
- to develop children’s understanding of the ways in which people have designed products in the past and present to meet their needs,
- To explore how we live and work within our world and use the internet to explore ‘made products’
- to develop children’s creativity and innovation through designing and making,
- to develop children’s understanding of technological processes, their management and contribution to society
- To create enjoyment, satisfaction and purpose in designing and making

Design & Technology in relation to the National Curriculum:

The national curriculum for design and technology aims 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.

Children will design and make a range of products. A good quality finish will be expected in all design and make activities appropriate to the age and ability of the pupil. The work covered in each year group ensures a balance of:

- investigative, disassembly and evaluative activities,
- focused practical tasks,
- designing and making assignments.

Principles of Teaching and Learning

St Gregory's school uses a variety of teaching and learning styles in D&T lessons. Design and Technology will engage the children in a broad range of designing and making activities which involve a variety of methods of communication, e.g. speaking, designing, drawing, assembling, making, writing and using information and communication technology. Within lessons, we give children the opportunity both to work on their own and to collaborate with others, listening to other children's ideas and treating these with respect.

In all classes there are children of differing ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- Setting common tasks that are open-ended and can have a variety of results
- Setting tasks of increasing difficulty to challenge when appropriate
- All children must be encouraged to design and make and must be stretched in designing and making. Access may be ensured through Learning Assistant support.
- Writing frames can be modified easily to support or stretch children.

Design and Technology curriculum planning

Design and Technology is a foundation subject in the National Curriculum, all year groups (from year 1 to year 6) use the New National Curriculum as the basis for their curriculum planning in design and technology.

Projects are mainly taught in blocks which allows for more effective learning in which teachers can focus on DT skills. Some DT units can be linked to creative curriculum topics and is therefore incorporated into topic planning, with each teacher ensuring an appropriate balance and distribution of DT work throughout each term. Teachers will ensure that they have a clear idea of the skills, knowledge and understanding to be taught in each unit of work that are indicated in the "minimum framework". Schemes of work and topic themed lesson plans are available for each teacher to use to support them in their own individual planning. The teacher keeps these plans in their planning file. The schemes set out what is to be taught and include opportunities for:

- Developing, planning and communicating ideas (Design)
- Working with tools, equipment, materials and products (Make)
- Evaluating processes and products (Evaluate)
- Knowledge and understanding of materials and components (Technical Knowledge)
- Widening the breadth of study

The foundation Stage

Skills in the Foundation Stage are planned through the objectives with the EYFS. We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and natural curiosity.

The subject coordinator will do regular scrutinies of planning and children's written/designed work to ensure adequate coverage of the National curriculum over each key stage. There is a balance of projects over each key stage concerned with textiles, food technology and resistant materials. (Cooking and Nutrition now forms a statutory part of the curriculum for both key stage 1 and 2)

Role of the staff:

It is the responsibility of the staff:

- To plan and deliver the DT National curriculum following the guidelines in this document (training documents, schemes of work are saved in the schools computer shared area)
- To ensure that the entire range of skills detailed in the National curriculum are taught
- To look after shared resources when used and to return them safely to the designated storage areas
- To ensure that pupils are taught safe procedures and practices for use of tools and equipment
- To ensure that they are confident and adequately skilled in the safe use of the equipment

Role of the subject leader:

- To monitor the DT curriculum and to update the school's policy in accordance with national guidelines and curriculum statements.
- To review the provision and coverage of DT on an annual basis, in discussion with the teachers.
- To support teachers in delivering the curriculum and arrange staff development and INSET training where appropriate
- To ensure teachers complete a coverage audit each academic year and assess each pupil against a set of criteria linked to the objective/skills of the National Curriculum.

Relationship to other Subjects

Design & Technology is taught as a subject specific activity through a combination of whole class teaching, group work and individual work. Cross-curricular links are identified when appropriate. For example the children can apply scientific and mathematical knowledge to create products which are functional. We use ICT to support design and technology teaching when appropriate. Children use software to enhance their skills in designing and making; we have various draw and paint tools to model ideas. The children can also use ICT to collect information and to present their designs.

Design and Technology and Inclusion

Here at St Gregory's we teach design and technology to all children, whatever their ability. Through our design and technology teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs.

Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, and differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

Intervention may include a child receiving an Individual Education Plan (IEP) for children with special educational needs. The IEP **may include**, as appropriate, specific targets relating to design and technology. We enable pupils to have access to the full range of activities involved in learning design and technology. Where children are to participate in activities outside the classroom, for example, a museum or factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

Record keeping, Assessment and Reporting

Assessment is an integral party of the teaching process. Class teachers should keep records of work carried

out by pupils in their Art/DT exercise books.

Photographs can be a useful tool and sometimes these are also posted on our school website to share pupils' achievements.

At the end of the academic year teacher's must ensure they have identified children's progress in each aspect of the curriculum, determining what each child has learned and what should therefore be the next step in their learning. Teachers are required to fill in the school's assessment form for DT. Children's progress in DT is reported to parents annually in the school report.

Resources

Our school has a wide range of resources to support the teaching of design and technology across the school. Resources are stored in trolleys around the school. The cooking equipment is stored in the year 4 class cupboard. The subject leader will be responsible for the ordering and management of the equipment and materials. Some cooking materials will need to be ordered at the time of teaching the unit, teachers can purchase from a supermarket and be reimbursed from the DT budget. An annual audit of resources will be made by the coordinator.

Health and Safety

We teach children how to follow proper procedures for food safety and hygiene. It is the responsibility of teachers to teach the safe use of tools and equipment and insist on good practice.

Use of craft knives is limited to teaching staff/adults or to children in Year 6 under **direct adult supervision**.

Low temperature glue guns may be used by children in years 1 to 6, as long as this is limited to small groups and is under **direct adult supervision**.

Hot glue guns are to be used by teaching staff/adults only.

The teacher will be responsible for the health and safety of themselves, classroom assistants and pupils within their class.

Pupils will be taught to:

1. Collect and return tools and equipment safely;
2. Follow clear instructions;
3. Only move around the room when necessary;
4. Wear safety equipment whenever necessary.

To ensure the safe use of tools and equipment, it is important that teachers are confident when using them, so that they can correctly demonstrate their use. All pupils should be clear on the intended use of the tools. An annual inspection of resources/equipment will be made by the coordinator to ensure the safety of the tools.

Signed on behalf of the Governing Body:-

Date:- 4th December 2019.

Signed: _____ (Head Teacher) Date: _____

Signed: _____ (Chair of Governors) Date: _____

To be reviewed December 2020.