ST GEORGE'S

Design and Technology Policy

INSPIRED BY GOSPEL VALUES, TO GROW AND LEARN
THROUGH FAITH, LOVE AND LAUGHTER

Design and Technology Policy

Rationale

At St George's Catholic Primary School, we believe that design technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas, making products and systems.

Aims

- *To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making;*
- *To enable children to talk about how things work, and to draw and model their ideas;*
- *To encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;*
- *To explore attitudes towards the made world and how we live and work within it;*
- *To develop an understanding of technological processes, products, and their manufacture, and their contribution to our society;*
- *To foster enjoyment, satisfaction and purpose in designing and making.*

Implementation of Policy

At St George's Catholic Primary School, through the study of design and technology children combine practical skills with an understanding of aesthetic, social and environmental issues. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts.

Design and technology supports all children to become discriminating and informed consumers and potential innovators.

- We have used the best research to create a well sequenced and progressive curriculum map, containing the key concepts children need to be procedurally fluent in, to work and think like professional design technologists.

The key concepts in D.T we plan a progression for on our curriculum map are as follows:

- *Developing, planning and communicating ideas*
- *Working with tools, equipment, materials and components to make quality products*
- *Evaluating processes and products*
- *Mechanisms*
- *Construction and use of materials*
- *Textiles*
- *Cooking and Nutrition*

At St George's, children learn to produce practical solutions to real problems. Children develop technical understanding and making skills, learn about design methods and investigate their environment and the materials around them.

At St George's, we use a variety of teaching and learning styles in design technology lessons. The principal aim is to develop children's knowledge, skills and understanding in design and technology, and teachers encourage children to use their knowledge and understanding when developing ideas, planning and making products and evaluating them.

At St George's we use a balance of whole class teaching and individual or group activities, giving children opportunity to both work on their own and to collaborate with others.

At St George's, children are encouraged to listen to the ideas of others, and treat them with respect, to critically evaluate existing products, both their

own work and those of others. They have the opportunity to use a wide range of materials and resources, including ICT.

Knowledge and Understanding

At St George's Catholic Primary School, all children are encouraged to:

- *Generate ideas through discussion and experimentation*
- *Extend knowledge and understanding of a wide range of materials, including construction kits, textiles, food, wood, plastic, metals and reclaimed/junk materials.*
- *Work within groups and as individuals.*
- *Make use of drawings and models to communicate their ideas.*
- *Evaluate their work and identify strengths and weaknesses in a positive way.*
- *Experiment with simple components, mechanisms and structures.*
- *Learn about health and safety aspects when working with a variety of materials and tools.*
- *Consider risk to themselves and to others and build up a knowledge and understanding of the dangers inherent in certain products and tools.*
- *Experience design technology through off-site visits, where practicable, in order to see technology used in a real environment*

Planning

At St George's Catholic Primary School, planning is the responsibility of the class teacher. The curriculum map identifies the progression and sequence of key concepts in design technology. It is the class teachers' responsibility to use the curriculum map to plan well sequenced lessons as agreed in the long-term curriculum map.

In planning, the delivery of the curriculum will be differentiated where appropriate, to allow for children of all abilities.

The pedagogy we use is three distinct methods:

1. **Investigate,disassemble and evaluation activities.**
2. **Focused practical tasks**
3. **Design and make projects.**

EYFS and Key Stage 1

At St George's during EYFS and Key Stage 1, the children learn how to think imaginatively and talk about what they like and dislike when designing and making. The children begin to discuss and evaluate what worked well and what they would improve. They build on their early childhood experiences of investigating objects around them. They explore how familiar things work and talk about, draw and model their ideas. They learn how to design and make safely and could start to use ICT as part of their designing and making.

Key Stage 2

At St George's during Key Stage 2 children work on their own and as part of a team on a range of designing and making activities. They think about what products are used for and the needs of the people who use them. They plan what has to be done and identify what works well and what could be improved in their own and other people's designs. They draw on knowledge and understanding from other areas of the curriculum and use computers in a range of ways.

In EYFS, Key Stage 1 and Key Stage 2 children will:

- *Develop knowledge, skills and understanding*
- *Use developing, planning and communicating ideas*
- *Gain a knowledge and understanding of materials and components*
- *Carry out focused practical tasks that develop a range of techniques, skills, processes and knowledge*
- *Design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles*

- *Investigate and evaluate a range of familiar products, thinking about how they work, how they are used and the views of the people who use them • Allow constructive conversation and language interactions*

Knowledge and Skills

At St George's children learn how to draw on a developing a repertoire of skills and knowledge, which will include:

- *Learning how to work independently and collaboratively*
- *Developing, planning and communicating ideas*
- *Working with tools, equipment, materials and components to make quality products*
- *Evaluating processes and products*
- *Developing knowledge and understanding of materials and components*
- *Learning the importance of health and safety*

The Design and Technology Leader will:

- *Monitor design and technology within the school e.g. through curriculum walks and pupil conferencing*
- *Keep up to date with new developments and inform staff*
- *Encourage other members of staff in their design and technology teaching and give support where appropriate*
- *Ensure that design and technology resources are available and appropriate to the needs of the staff*
- *Ensure that design and technology maintains a strong profile within the school, through displays etc (e.g. by carrying out a curriculum walk every term and reporting findings to teachers and by updating the school design and technology displays regularly, reflecting progression throughout the school)*

- *Keep a portfolio for design and technology that will include photographs of children at work, curriculum walk reports, examples of medium-term plans and examples of children' work*
- *Audit resources regularly and take overall responsibility for equipment and resources*

Health and Safety

At St George's children will be given suitable instruction on the operation of all equipment before being allowed to work with it.

Children should be strictly supervised in their use of equipment at all times.

Children should be taught to respect the equipment they are using and to keep it stored safely while not in use.

Children should be taught to recognise and consider hazards and risks and to take- action to control these risks, having followed simple instructions.

Food Hygiene

Children and staff will take care to undertake appropriate hand washing and other hygiene related activities prior to preparing food.

Children and staff working with food must wear aprons designated for cooking.

All hand jewellery should be removed, and hair tied back.

Glue Guns

At St George's low temperature glue guns should only be used by an adult in Key Stage One and EYFS, unless there is one-to-one supervision for a child.

Key stage two children should use low temperature glue guns under supervision in a designated work area, wearing safety goggles.

Craft Knives

At St George's craft knives, quick cutters and rotary cutters should only be used by an adult/teacher in key stage one and the EYFS.

Key stage two children may use cutting equipment under supervision, using a cutting mat and wearing safety goggles.

Cooking & Nutrition

In EYFS and Key Stage One, children will have the opportunity to use cutlery that they use at lunch times to cut/slice appropriate foods with supervision from an adult. Other utensils such as blenders, microwaves and ovens will only be used by an adult/teacher.

In Key Stage Two, children have the opportunity to use a range of cooking utensils under supervision. Adults/teachers supervising will have received up to date information regarding how to use different utensils safely in the classroom.

The design and technology lead will receive approved food hygiene and handling training and disseminate this information to all staff through designated staff training.

Sawing

At St George's bench hooks and clamps must be used when sawing any material. Safety goggles must be worn, and any loose items of clothing/hair must be tucked in.

Equal Opportunities

At St George's all children, regardless of gender, religion, race or learning needs will be given equal access to the design and technology curriculum.

The design and technology curriculum will be differentiated according to the needs of the children. If a child needs specialist equipment to access the curriculum, the school will adapt teaching and learning and source different equipment where appropriate

If a child has an EHCP and is not able to access the curriculum at the same level as his/her peers, then provision will be made for the child to access the curriculum at their own level. If a child is identified as being more able, in this curriculum area, they will be challenged in their learning.

Monitoring and review:

At St George's the monitoring of the standards of children's work and of the quality of teaching in design and technology is the responsibility of the design and technology subject leader. The design and technology subject leader provides the SLT with information through reviewing planning and topic coverage regularly and reviewing the progress towards the targets in the school improvement plan as set out in the monitoring and evaluating calendar. Samples of work are photographed or collected to build a portfolio of work in design and technology.

Disability Equality Impact Assessment

This policy has been written with reference to and in consideration of the school's Special Educational Needs and Disability Policy.This can be found at www.stgcps.org

Assessment will include consideration of issues identified by the involvement of disabled children, staff and parents and any information the school holds on disabled children, staff and parents.