St James' Lanehead Church of England Primary School

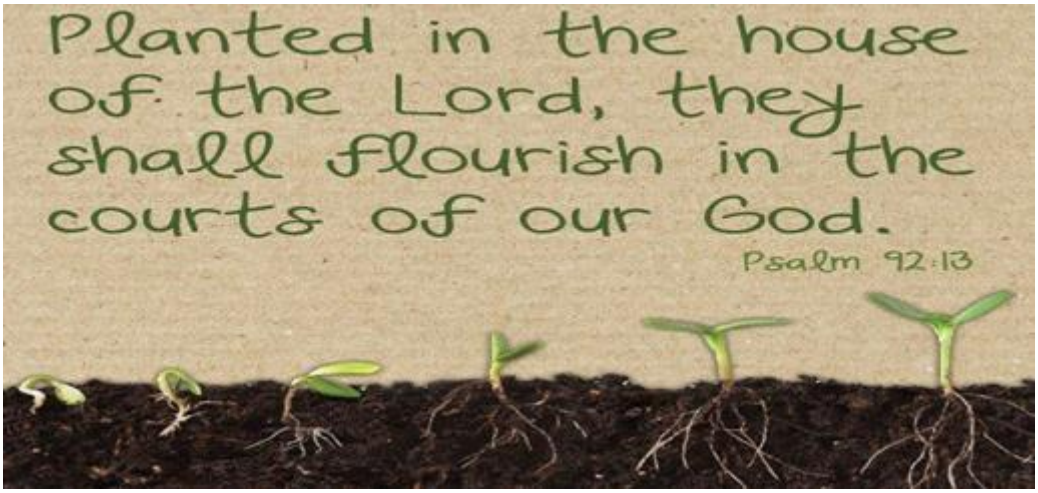
Design Technology Policy

Date of Policy:	**May 2022**
Person Responsible:	**S Clutterbrook**
To be reviewed:	**Three years**
Review Date:	**May 2025**

St James` Lanehead C of E (VA) Primary School

Mission Statement

Our church school seeks to inspire each individual to flourish, grow and learn with Jesus at the heart of all we do.



St James' Lanehead Primary School

DT Policy

Rationale:

At St James' Lanehead our curriculum is made up of the planned activities that we as a school deliver in order to promote learning, personal growth and development. It includes not only the formal requirements of the National Curriculum, but also an exciting range of opportunities to enrich the experience. We aim to teach our children to grow into positive, responsible role models who can work and co-operate with others whilst developing the knowledge, skills and understanding within subjects as well as a positive attitude to use throughout their lives.

In Design and Technology (DT) children are taught to develop their capability through designing and making a range of products and systems for specific purposes. Pupils solve problems creatively as individuals and members of a team. In doing, so they reflect on and evaluate present and past design and technology, its uses and effects.

Purpose:

- Design & Technology offers opportunities to:
- To foster a positive attitude towards DT.
- To develop skills, knowledge and understanding, which children can apply to a technological process, planning and making with constant evaluation.
- To develop an awareness of the environment and appreciate that we can affect and control it to a certain extent.
- To develop the ability to communicate effectively - verbally, numerically and visually.
- To develop a range of thinking and encourage children to use their own strategies to solve problems.
- To develop social skills when working in a group.
- To understand and apply principles of nutrition and develop cooking skills.

Guidelines:

1. All children are given equal opportunities to follow the National Curriculum for DT, which states

DT will incorporate:

- Investigative skills where children disassemble and critically evaluate existing products to inform their own design. (IDEA)
- Focused Practical Task (FPT) where children are given an opportunity to learn and practise new skills and techniques.
- Design and Make Assignment (DMA) this is where children are allowed to be creative using what they have learnt through FPT.

2. Work is planned to ensure progression of content and skills across each Key Stage, appropriate to the children's ages and abilities.

3. Cross curricular links are made with other subjects, including ICT and science, where appropriate. Within science there are opportunities for children to use and develop their scientific knowledge and understanding when working with a range of materials for example when working on electrical circuits and with food products. The use of ICT can help children's learning in design and technology by providing additional equipment and tools to help them produce and manipulate images and play with ideas and possibilities for the creative use of materials and processes.

4. Children develop and practise particular skills and knowledge working with a range of tools, materials and equipment in a variety of ways.

5. Children investigate, disassemble and evaluate products before designing and making their own.

6. All children are made aware of Health and Safety issues when undertaking work in DT. When working with tools, equipment and materials, in practical activities and in different environments, including those that are unfamiliar, pupils should be taught:

- About hazards, risks and risk control
- To recognise hazards, assess consequent risks and take steps to control the risks to themselves and others
- To use information to assess the immediate and cumulative risks
- To manage their environment to ensure the health & safety of themselves and others
- To explain the steps they take to control risks.

The Design and Technology Curriculum

Early Years

In Early Years, Design and Technology is taught through daily conversations, adult-led activities and child-led activities. The children are encouraged to utilise materials that are readily available within the classroom to design and create pieces of work that is either based on previous mini-teaching sessions or their own imagination. In the Foundation Stage, Design and Technology makes a significant contribution to developing a child's understanding of the world through activities such as design, imagination, creativity and fine-motor skills.

Key Stage One

The National Curriculum Programme of Study of Key Stage 1 focuses on developing the key skills and building on from the Early Learning Goals. Children will be taught the knowledge and skills needed to engage in an interactive process of designing and making; applying what they have learnt to create an end project. Creative and practical activities will be

planned and delivered through a range of relevant contexts, in order to support such application of knowledge and skill. Children will begin to create a simple design criteria, communicating their ideas through discussion and drawing.

Pupils should be taught:

• Design purposeful, functional, appealing products for themselves and other users based on design criteria

• Generate, develop, model and communicate their ideas through taking, drawing, templates, mock-ups and where appropriate, information and communication technology

• Select from and use a range of tools to perform practical tools

• Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics

• Explore and evaluate a range of existing products

• Evaluate their ideas and products against design criteria

• Build structures explaining how they can be made stronger, stiffer and more stable

• Explore and use mechanisms in their products

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

• Understand where food comes from

Key stage 2

The National Curriculum Programme of Study at Key Stage 2 aims to continue building on the Design and Technology skills and knowledge that has been acquired throughout Key Stage 1. Similarly to KS1, children will develop their knowledge and skills through relevant contexts. Children will design, make and evaluate projects based on consumer awareness; creating design specifications based on research of needs and requirements of a particular individual or group. Children will be encouraged to generate, develop and communicate their ideas through more sophisticated ways of planning such as; discussion, annotated sketches, prototypes and computer-aided design. Evaluation of their own and existing products will have a bigger focus, as they use this to inform subsequent projects and learn about the impact of key designers, manufactures and chefs, on the modern world.

Pupils should be taught:

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

• How to generate, develop and model ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.

• To select and use a wide range of tools and equipment to perform practical tasks accurately.

• To select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their functional properties and aesthetics.

• To investigate and analyse a range of existing products.

• To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

• To understand how key individuals and events in D&T have helped shape the World.

• How to apply their understanding of how to stiffen, strengthen and reinforce more complex structures.

• To understand and use mechanical systems in their products.

• To understand and use electrical systems in their products.

• To apply their understanding of computing to program, monitor and control their products.

• To understand and apply the principles of a healthy and varied diet.

• How to prepare and cook a variety of predominantly savoury dishes using a range **of** cooking techniques.

• To understand seasonality and know when where and how a range of products are grown, reared, caught and processed.

Assessment and Feedback

Assessment is an integral part of the teaching process. Assessment is used to inform planning and to facilitate differentiation. The assessment of children's work is on-going to ensure that understanding is being achieved and that progress is being made. Feedback is given to the children as soon as possible, and marking work will be guided by the school's Marking Policy. The use of a knowledge organiser ensures that there is a focus on the key vocabulary and that the children know exactly what the end of unit expectation is.

Monitoring

Monitoring is the responsibility of the Design and Technology Lead. Monitoring of D&T includes; learning walks, book looks, environment looks, teacher planning, pupil voice and staff voice. Pre and post quizzes are also used to monitor pupils' ability to retain key knowledge and skills taught within the curriculum driver.

Progression

D&T progression documents have been created by the Subject Leader. Teachers use this to ensure activities build on pupil's prior learning. Progression documents ensure that pupil's skills are constantly challenged as they move up through school.

Resources

All resources, both consumable and non-consumable are located in the DT cupboard in Sycamore classroom. It is the responsibility of the class teacher to ensure all the resources required for a DT project they are undertaking are available and if required, teachers are to inform the Design and Technology leader. It is also the responsibility of each class teacher to collect resources and then return them after use. If any resources become broken during use, the Design and Technology leader needs to be informed as soon as possible.

Health and Safety

• Children should be given suitable instruction on the operation of all equipment before being allowed to use 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 for the safety of everyone.

Food Hygiene

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

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

• Hair tied back.

Glue Guns

• Low temperature glue guns should only be used by an adult in Key Stage One and the Foundation Stage unless there is one-to-one supervision for a pupil.

• Key Stage two children should use low temperature glue guns under supervision in a

designated work area, wearing safety goggles.

Sawing

• Bench hooks and clamps must be used when sawing any material.

• Any loose items of clothing/hair must be tucked in.

• Sewing

• Children will sew using tapestry needles and when using pins to join fabrics they will be shown how to use them safely (pushing the point in an away direction).

Conclusion:

Design and technology provides an opportunity for all pupils to become discriminating and informed users of products and to become innovators.

Our school aims to support all families and the wider community. Any queries or concerns regarding individual policies will be considered on an individual basis.