



DESIGN & TECHNOLOGY POLICY

Ratified by Head/SLT	16 th May 2019
Next Review (4 yrs)	Summer 2021

The Vision of St John's CE Primary School, Rishworth

Matthew 5:16 (NRSV)

"Let your light shine before others, so that they may see your good works and give glory to your father in heaven."

Following Matthew 5:16, people shine through success, honesty, independence, neighbourliness and enjoyment. We believe children learn best when they're happy and have the confidence to respond to challenges, within a caring Christian environment where adults lead by example. We value the partnership with families and the community whilst striving to give our best.

The School's Aims are:

- ◆To maximise the academic attainment of each child
- ◆To maximise the personal, social, spiritual and physical development of each child

The pupils, staff, parents and governors of St John's have worked together to create **our core values:**

Success. We aim to provide excellent learning opportunities to ensure the best possible progress and attainment for all children whatever their needs and abilities.

Honesty. We aim to develop children's understanding of the importance of honesty in all relationships and as part of self-reflection in a Christian environment.

Independence. We aim to develop the self-confidence in all our children that enables them to think and work independently, so striving for excellence in all areas of the curriculum.

Neighbourliness. We aim to ensure that every child becomes a compassionate and respectful member of the school, local, national and global communities.

Enjoyment. We aim to be a safe, friendly and welcoming environment where children have exciting and creative learning experiences that help develop an enjoyment and love of learning.

INTRODUCTION

We teach pupils the ability to embrace new technologies; think creatively to solve problems (individually and in teams) and improve the quality of life. They learn to identify needs, wants and opportunities, develop ideas and manufacture products and systems. The subject enables pupils to combine practical skills with an appreciation of aesthetics, social and environmental issues, function and industrial practices. Pupils become discriminating and informed users and innovators.

We believe that DT is a "problem solving" subject and that our programmes of study should help pupils to find practical solutions to problems.

Intent

1. **Self** - We want our pupils to be inspired to work creatively to develop ideas and solve problems using a range of materials and processes.
2. **Others** - We want our pupils to develop an appreciation of design work within our community and a range of historical periods.
3. **Wider world** – We want our pupils to have confidence, skills and knowledge to be active participants in a rapidly changing technological society.

AIMS AND OBJECTIVES

- To develop imaginative thinking in pupils and to enable them to talk about what they like and dislike when designing and making.
- To enable pupils to talk about how things work, and to draw and model their ideas.
- To encourage pupils 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.

TEACHING AND LEARNING STYLE

The school uses a variety of teaching and learning styles in design and technology lessons. Pupils work alone or in groups on their designs. They collaborate and share ideas with others. They have the opportunity to use a wide range of materials and resources, including ICT.

In all classes there are pupils of differing ability. We recognise this fact and provide suitable learning opportunities for all pupils by matching the challenge of the task to the ability of the pupil. The schemes of work are differentiated at appropriate levels of challenge.

DESIGN AND TECHNOLOGY CURRICULUM PLANNING

Design and technology is a foundation subject in the National Curriculum. Our school uses the skills and knowledge objectives set out in the National Curriculum as the basis for its curriculum planning in design and technology.

We carry out the curriculum planning in design and technology in three phases: long-term, medium-term and short-term.

The long-term plan maps out the topics to be covered over the 4 year cycle (KS2) or 2 year cycle (KS1). Topics covered include: textiles, vehicles, electricity and food.

The medium-term plans are written by the KS teams under the direction of the Key Stage leader. They address the problem solving, designing, making and evaluating elements of DT. The plans are differentiated so as to address the needs of all the pupils in the KS.

The short term plans are completed by all teachers and outline when lessons will be delivered. DT is a subject which teachers might choose to block over a 2-3 week programme in the term. This allows for sharing of resources and for a reduction in time spent setting up and clearing up classrooms.

Assessment is built into our programmes of work. Pupil's work is usually photographed and recorded in the red home-school books with evaluations from the pupils. Teachers record assessments in these books which can then be used for annual report writing.

THE FOUNDATION STAGE

We encourage the expressive art and design of our pupils in Reception class as an integral part of their work. As Reception class is part of the EYFS, We relate the development of the pupil's knowledge and understanding of the world to the objectives set out in the Early Years Outcomes which underpin the statutory requirements for pupils from birth to end of the Reception year. This learning forms the foundations for later work in design and technology. These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control.

We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the pupil's interest and curiosity.

TEACHING DESIGN AND TECHNOLOGY TO PUPILS WITH SPECIAL EDUCATIONAL NEEDS

DT forms part of the school curriculum policy to provide a broad and balanced education to all pupils. Through our DT teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each pupil's different needs.

RESOURCES

Our school has a wide range of resources to support the teaching of design and technology across the school. Tools and materials are managed by the DT subject managers. These are audited annually and new resources purchased. KS teams identify their needs for the coming year and ensure that adequate materials are purchased to ensure effective teaching of each project.

HEALTH AND SAFETY

The general teaching requirement for health and safety applies in this subject. We teach pupils how to follow proper procedures for food safety and hygiene and using tools (such as glue-guns/cutting equipment) safely.

MONITORING AND REVIEW

The monitoring of the standards of pupils' work and of the quality of teaching in DT is the responsibility of the DT subject leader. The work of the subject leader also involves supporting colleagues in the teaching of DT, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

<u>Progression of computing knowledge and skills</u>	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<i>Developing, Planning and Communicating Ideas</i>	<p>Draw on their own experience to help generate ideas</p> <p>Suggest ideas and explain what they are going to do</p> <p>Identify a target group for what they intend to design and make</p> <p>Model their ideas in card and paper</p> <p>Develop their design ideas applying findings from their earlier research</p>	<p>Generate ideas by drawing on their own and other people's experiences</p> <p>Develop their design ideas through discussion, observation, drawing and modelling</p> <p>Identify a purpose for what they intend to design and make</p> <p>Identify simple design criteria</p> <p>Make simple drawings and label parts</p>	<p>Generate ideas for an item, considering its purpose and the user/s</p> <p>Identify a purpose and establish criteria for a successful product</p> <p>Plan the order of their work before starting</p> <p>Explore, develop and communicate design proposals by modelling ideas</p> <p>Make drawings with labels when designing</p>	<p>Generate ideas considering the purposes for which they are designing</p> <p>Make labelled drawings from different views showing specific features</p> <p>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail</p> <p>Evaluate products and identify criteria that can be used for their own designs</p>	<p>Generate ideas through brainstorming and identify a purpose for their product</p> <p>Draw up a specification for their design</p> <p>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail</p> <p>Use results of investigations, information sources, including ICT when developing design ideas</p>	<p>Communicate their ideas through detailed labelled drawings</p> <p>Develop a design specification</p> <p>Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways</p> <p>Plan the order of their work, choosing appropriate materials, tools and techniques</p>

<p>Working with tool equipment, materials and components to make quality products (inc-food)</p>	<p>Make their design using appropriate techniques</p> <p>With help measure, mark out, cut and shape a range of materials</p> <p>Use tools eg scissors and a hole punch safely</p> <p>Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape</p> <p>Select and use appropriate fruit and vegetables, processes and tools</p> <p>Use basic food handling, hygienic practices and personal hygiene Use simple finishing techniques to improve the</p>	<p>Begin to select tools and materials; use vocab' to name and describe them</p> <p>Measure, cut and score with some accuracy</p> <p>Use hand tools safely and appropriately</p> <p>Assemble, join and combine materials in order to make a product Cut, shape and join fabric to make a simple garment.</p> <p>Use basic sewing techniques</p> <p>Follow safe procedures for food safety and hygiene Choose and use appropriate finishing techniques</p>	<p>Select tools and techniques for making their product</p> <p>Measure, mark out, cut, score and assemble components with more accuracy</p> <p>Work safely and accurately with a range of simple tools</p> <p>Think about their ideas as they make progress and be willing change things if this helps them improve their work</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Demonstrate hygienic food preparation and storage</p> <p>Use finishing techniques strengthen and improve the appearance of their product using a range of</p>	<p>Select appropriate tools and techniques for making their product</p> <p>Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</p> <p>Join and combine materials and components accurately in temporary and permanent ways Sew using a range of different stitches, weave and knit</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Use simple graphical communication techniques</p>	<p>Select appropriate materials, tools and techniques</p> <p>Measure and mark out accurately Use skills in using different tools and equipment safely and accurately</p> <p>Weigh and measure accurately (time, dry ingredients, liquids) Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens</p> <p>Cut and join with accuracy to ensure a good-quality finish to the product</p>	<p>Select appropriate tools, materials, components and techniques</p> <p>Assemble components make working models Use tools safely and accurately</p> <p>Construct products using permanent joining techniques</p> <p>Make modifications as they go along Pin, sew and stitch materials together create a product</p> <p>Achieve a quality product</p>
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	appearance of their product		equipment including ICT			
Evaluating processes and products	<p>Evaluate their product by discussing how well it works in relation to the purpose</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Evaluate their product by asking questions about what they have made and how they have gone about it</p>	<p>Evaluate against their design criteria</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Talk about their ideas, saying what they like and dislike about them</p>	<p>Evaluate their product against original design criteria e.g. how well it meets its intended purpose</p> <p>Disassemble and evaluate familiar products</p>	<p>Evaluate their work both during and at the end of the assignment</p> <p>Evaluate their products carrying out appropriate tests</p>	<p>Evaluate a product against the original design specification</p> <p>Evaluate it personally and seek evaluation from others</p>	<p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests</p> <p>Record their evaluations using drawings with labels</p> <p>Evaluate against their original criteria and suggest ways that their product could be improved</p>

