# Curriculum Handbook for Design Technology

## Part 1: Intent, Implementation, Impact
## Long Term Plan/ SEND Provision
## Progression of Skills

**St. Martin's**

C. of E. Primary School

*Serve one another in love*

Galatians 5v13

# St. Martin's C of E (VA) Primary School

## Design Technology 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.' (National Curriculum, 2014)*

Aims

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.

Curriculum Intent

At St. Martin's C of E (VA) Primary School, we believe that Design and Technology prepares children to look forward and deal with a rapidly changing world. It encourages them to think imaginatively and become problem solvers who can work well independently and with their peers. To ensure our pupils are taught consistently to a high standard, we use Kapow's Design Technology's Schemes of Work.

Kapow Primary's Design and technology scheme of work aims to inspire pupils to be innovative and creative thinkers, who have an appreciation for the product design cycle through ideation, creation, and evaluation. We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing and to be reflective learners who evaluate their work and the work of others. Through our scheme of work, we aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements. Our scheme of work enables pupils to meet the end of key stage attainment targets in the national curriculum and the aims also align with those in the national curriculum.

Knowledge in Design Technology is defined as:

### Substantive Knowledge-

Substantive knowledge in design and technology is based on the knowledge of four key elements of the process of design (design, make, evaluate and technical knowledge). All of these elements will be taught from Reception to Year 6 and vocabulary is taught explicitly and will be deliberately practised and applied through the 4 key elements. These are:

- Design- Know how to design a product that is purposeful, functional and appealing to a specific group.
- Make- Know how to cut, join and finish a range of increasingly complex materials, ranging from paper to wood.

- Evaluate- Know how to investigate, evaluate and analyse a range of existing products and their own designs based on a specific design criteria. In addition to this, children will know key individuals have helped to shape the world in which we live in.
- Technical knowledge- Know how to apply their knowledge of specific materials to meet the criteria listed above in the design, make and evaluate stages.

### Disciplinary knowledge-

This is the process of enabling children to use their substantive knowledge of products and materials around them to make links between and across different areas of the curriculum. Knowledge in design and technology will equip the children with the opportunity to explain how and why products have changed over time and how they might be further improved in the future. They can use their knowledge and understanding to suggest how existing products may be improved with the advances in modern technology. Children will demonstrate that they have the cultural capital to become global citizens, following global themes and fundamental British Values, in an ever changing and technologically advancing world.

Curriculum Implementation

Our Design and technology scheme has a clear progression of skills and knowledge across each year group. Our Progression of skills shows the skills that are taught within each year group and how these skills develop to ensure that attainment targets are securely met by the end of each key stage.

Through our Design and technology scheme, pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in six key areas:

- Mechanisms
- Structures
- Textiles
- Cooking and nutrition (Food)
- Electrical systems (KS2)
- Digital world (KS2)

Each of the key areas follows the design process (design, make and evaluate) and has a particular theme and focus from the technical knowledge or cooking and nutrition section of the curriculum.

The Kapow Primary scheme is a spiral curriculum, with key areas revisited repeatedly with increasing complexity, allowing pupils to revisit and build on their previous learning. Lessons incorporate a range of teaching strategies from independent tasks, paired and group work including practical hands-on, computer-based and inventive tasks. This variety means that lessons are engaging and appeal to those with a variety of learning styles. Differentiated guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils' learning are available when required. Knowledge organisers for each unit support pupils in building a foundation of factual knowledge by encouraging recall of key facts and vocabulary.

Strong subject knowledge is vital for staff to be able to deliver a highly effective and robust Design and technology curriculum. Each unit of lessons includes multiple teacher videos to develop subject knowledge and support ongoing CPD.

Curriculum Impact

The impact of teaching Design Technology can be constantly monitored summative assessment opportunities and each lesson includes guidance to support teachers in assessing pupils against the learning objectives.

After the implementation of Kapow Primary Design and technology, pupils should leave school equipped with a range of skills to enable them to succeed in their secondary education and be innovative and resourceful members of society.

The expected impact of following the scheme of work is that children will: )

- Understand the functional and aesthetic properties of a range of materials and resources.
- Understand how to use and combine tools to carry out different processes for shaping, decorating, and manufacturing products.
- Build and apply a repertoire of skills, knowledge and understanding to produce high quality, innovative outcomes, including models, prototypes, CAD, and products to fulfil the needs of users, clients, and scenarios.
- Understand and apply the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment.
- Have an appreciation for key individuals, inventions, and events in history and of today that impact our world.
- Recognise where our decisions can impact the wider world in terms of community, social and environmental issues.
- Self-evaluate and reflect on learning at different stages and identify areas to improve.
- Meet the end of key stage expectations outlined in the National curriculum for Design and technology.

# St. Martin's C of E (VA) Primary School
# Design and Technology Long Term Plan

Key Stage 1 Topic Overview:

| Year A | Autumn: Explorers | | Spring: Our World | | Summer: Seaside | |
|---|---|---|---|---|---|---|
| Burniston Rocks (year 1)<br>Hayburn Wyke (year 1/2)<br>Ravenscar (Year 2) | Cooking and Nutrition: Fruit and Vegetables | | Structures: Constructing a windmill | | Mechanisms: Making a Moving Monster | |
| **Year B** | **Autumn: On the Farm** | | **Spring: Historical Heroes** | | **Summer: Safari** | |
| Burniston Rocks (year 1)<br>Hayburn Wyke (year 1/2)<br>Ravenscar (Year 2) | | Mechanisms: Wheels and axles | | Textiles: Easter Puppet Animals | | Cooking and Nutrition: A Balanced Diet |

# St. Martin's C of E (VA) Primary School
# Design and Technology Long Term Plan

Key Stage Two Topic Overview:

| Year A | Autumn (opposite to Art) | Spring (opposite to Art) | Summer (opposite to Art) |
|---|---|---|---|
| Boggle Hole (Year 3) | Digital World: Mindful moment timers | Structure Pavilions | Cooking and Nutrition: Adapting a recipe |
| Robin Hoods Bay (Year 3/4) | Digital World: Mindful moment timers | Structure Pavilions | Cooking and Nutrition: Adapting a recipe |
| Saltwick Bay (Year 4/5) | Digital World: Monitoring devices | Structures: Bridges | Cooking and Nutrition: What could be healthier? |
| Sandsend (Year 5) | Digital World: Monitoring devices | Structures: Bridges | Cooking and Nutrition: What could be healthier? |
| **Year B** | **Autumn (opposite to Art)** | **Spring (opposite to Art)** | **Summer (opposite to Art)** |
| Boggle Hole (Year 3) | Textiles: Cross Stitch (cushions) | Mechanical Systems: Making a Slingshot car | Electrical Systems: Torches |
| Robin Hoods Bay (Year 3/4) | Textiles: Cross Stitch (cushions) | Mechanical Systems: Making a Slingshot car | Electrical Systems: Torches |
| Saltwick Bay (Year 4/5) | Textiles: Stuffed Toys | Mechanical Systems: Pop-up book | Electrical Systems: Doodlers |
| Sandsend (Year 5) | Textiles: Stuffed Toys | Mechanical Systems: Pop-up book | Electrical Systems: Doodlers |

# St. Martin's C of E (VA) Primary School
# Design and Technology Long Term Plan

Year 6 Topic Overview:

| Year 6 | Autumn 1<br>The Mayan civilisation | Autumn 2<br>UK & America | Spring 1<br>Extreme earth | Spring 2<br>Extreme Earth | Summer 1<br>Britain since 1948 | Summer 2<br>Britain since 1948 |
|---|---|---|---|---|---|---|
| Runswick Bay | Food and Nutrition: Come Dine with Me | | | Digital World: Navigating the world. | | Structure: Playgrounds |

# St. Martin's C of E (VA) Primary School
# SEND Provision – Design and Technology

| Cognition and Learning | | Communication and Interaction | |
|---|---|---|---|
| Subject Challenges for SEND | Provision for SEND | Subject Challenges for SEND | Provision for SEND |
| Interpretation of designer's work. | Use stem sentences to provide subject specific language in a particular format – this will enable children to accurately communicate their thoughts and opinions. | Expressing themselves and sharing their thoughts and opinions orally. | Use stem sentences to provide subject specific language in a particular format – this will enable children to accurately communicate their thoughts and opinions. |
| Understanding of subject specific vocabulary. | Pre-teach subject specific vocabulary. Draw particular attention to subject specific vocabulary which have different meanings in other contexts. E.g. 'knead/need, saw/saw, seam/seem.' Use visuals via Widgit Online to aid understanding of subject specific vocabulary. Reinforce through matching activities. | | Use flash cards supported by visuals to allow the children to choose adjectives to support their reasoning, e.g. children could select the word 'bright' to describe why they like a particular piece of D&T work. Children could then match these flash cards to different pieces of D&T work to demonstrate understanding. Teacher can use these flash cards to prompt verbal reasoning. |
| Difficulty in producing accurate pieces of writing e.g. an evaluation of a D&T project. | Use writing frames, 'fill in the blank' sentences, sentence starters, vocabulary mats, visuals to sequence etc. Children can record work differently e.g. through the use of ICT (PowerPoints, Word documents, videos etc). | EAL pupils may find it difficult to access resources/learning. | Use a reduced number of simple instructions which are supported by visuals e.g. 'cut, stick, colour.' Appropriate modelling to aid understanding.<br><br>Differentiated written resources can be supported by visuals and could be translated using Word. (Teachers click Review – Translate – Translate Document). This will fully translate the document and open in a new window. |
| Sequencing of physical art task (knowing which steps to complete first). | Utilise 'shared tasks' by pairing children with a learning buddy. One partner verbally explains the process of making something whilst the other asks questions. Partners swap roles and repeat the task. This will reinforce sequencing. Flow charts can be useful in visually demonstrating a specific sequence. | | |

# St. Martin's C of E (VA) Primary School
## SEND Provision – Design and Technology

| Sensory and Physical | | Social Emotional and Mental Health | |
|---|---|---|---|
| Subject Challenges for SEND | Provision for SEND | Subject Challenges for SEND | Provision for SEND |
| Fine motor skills/physical difficulties. | Teachers to be proactive in identifying appropriate resources and manipulatives for each individual child's need. For example, some children may require double holed scissors, enlarged sewing needles etc. Pre-teach can be used to ensure that children are confident using D&T equipment before the lesson. | Low self-esteem in D&T ability. | Showcase different work and a focus on the creation process rather than on the end result. Teacher be conscious to praise effort rather than ability.<br><br>Make use of learning objectives which focus upon the specific D&T skill and not the resulting D&T work, e.g. focus upon the uniform length of stitches rather than the neat cutting out of the fabric shape. |
| Sensory difficulties accessing specific materials during D&T lessons. For example, some children may find it very difficult to handle a material such as cotton wool due to tactile sensory difficulties. | Ensure any sensory difficulties are considered at the point of planning and alternative materials are provided to avoid sensory overload, e.g. replace cotton wool for polyfill stuffing. | | Pre-teach key information and vocabulary so that children feel prepared for the lesson and can share their knowledge with their peers – resulting in raised self-esteem.<br><br>Sensory breaks as required to enable children who are struggling to regulate their emotions before continuing. |
| Children with a visual impairment may find it difficult to view text/images. | Ensure that font size used in resources matches the specific font size specified in the child's report provided by the outside agency. Enlarge images to appropriate sizes to aid access. | Difficulties with social skills may result in children finding group work challenging. | Carefully consider seating arrangements during group work to ensure that children are placed next to patient, non-dominant children. Additional adult support can be deployed as necessary.<br><br>Ensure children have access to usual aides such as ear defenders to reduce noise. |

St. Martin's C of E (VA) Primary School
SMSC Subject Statement

# Design Technology (DT)

## Spiritual

- D.T supports spiritual development by allowing pupils the opportunity to exercise imagination, inspiration, intuition and insight through creativity and risk taking in analysing, designing and manufacturing a range of products. It instils a sense of awe, wonder and mystery when studying the natural world or human achievement. Encouraging creativity allows pupils to express innermost thoughts and feelings and to reflect and learn from reflection, for example, asking 'why?', 'how?' and 'where?'.

## Moral

- D.T supports moral development by raising awareness of the moral dilemmas by encouraging pupils to value the environment and its natural resources and to consider the environmental impact of everyday products. It educates pupils to become responsible consumers.

## Social

- D.T Supports social development by providing opportunities to work as a team, recognising others' strengths and sharing equipment. Design Technology promotes equality of opportunity and provides an awareness of areas that have gender issues e.g. encouraging girls to use equipment that has been traditionally male dominated.

## Cultural

- D.T supports cultural development by encouraging children to reflect on ingenious products and inventions, the diversity of materials and ways in which design technology can improve the quality of life. It investigates how different cultures have contributed to technology and reflects on products and inventions, the diversity of materials and ways in which design can improve the quality of our lives.

# St. Martin's C of E VA Primary School
# Design and Technology Progression of Skills

<table>
<tr><th colspan="3">Early Years</th></tr>
<tr><td rowspan="2">Development Matters</td><td>Physical development</td><td><ul><li>Develop their small motor skills so that they can use a range of tools competently, safely and confidently.</li></ul></td></tr>
<tr><td>Expressive Arts and Design</td><td><ul><li>Explore, use and refine a variety of artistic effects to express their ideas and feelings.</li><li>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</li><li>Create collaboratively, sharing Ideas, resources ad skills.</li></ul></td></tr>
<tr><td rowspan="2">Early Learning Goals</td><td>Physical Development<br>Fine Moto Skills</td><td><ul><li>Use a range of small tools, including scissors, paintbrushes, and cutlery.</li></ul></td></tr>
<tr><td>Expressive Arts and Design<br>Creating with Materials</td><td><ul><li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture form and function.</li><li>Share their creations, explaining the process they have used.</li></ul></td></tr>
<tr><td colspan="3">Design:<br>Talk about what they want to make.<br><br>Make:<br>Use a variety of tools and materials to make models,<br><br>Evaluation:<br>Share their product with peers saying what they like and dislike about their product.</td></tr>
<tr><td colspan="3">Design and technology is covered throughout the year through weekly themes and interests from the children. Children develop their design and technology skills through the core provision. In the classroom there is a junk modelling area to give children the opportunity to develop their skills through child led play and adult led play. Provision is enhanced each week to meet the children's needs, next steps and interests. Children are encouraged to use a design sheet when creating their product.</td></tr>
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# St. Martin's C of E VA Primary School
# Design and Technology Progression of Skills

| National Curriculum | |
|---|---|
| Key Stage 1 | Key Stage 2 |
| Pupils should be taught about:<br><br>Design:<br>• Design purposeful, functional, appealing products for themselves and other users based on design criteria.<br>• Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.<br>Make:<br><br>• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing.<br>• Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.<br><br>Evaluate:<br>• Explore and evaluate a range of existing products.<br>• Evaluate their ideas and products against design criteria.<br>Technical knowledge:<br>• Build structures, exploring how they can be made stronger, stiffer and more stable.<br>• Explore and use mechanisms e.g. levers, sliders, wheels and axles, in their products.<br><br>Cooking and Nutrition:<br><br>• Use the basic principles of a healthy and varied diet to prepare dishes.<br>• Understand where food comes from. | Pupils should be taught about:<br><br>Design:<br><br>• Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.<br>• Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.<br>Make:<br><br>• Select from and use a wider range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing, accurately.<br>• Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.<br><br>Evaluate:<br><br>• Investigate and analyse a range of existing products.<br>• Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.<br>• Understand how key events and individuals in design and technology have helped shape the world.<br><br>Technical knowledge:<br><br>• Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.<br>• Understand and use mechanical systems in their products e.g. gears, pulleys, cams, levers and linkages. |

# St. Martin's C of E VA Primary School
# Design and Technology Progression of Skills

| | |
|---|---|
| | • Understand and use electrical systems in their products e.g. series circuits incorporating switches, bulbs, buzzers and motors.<br>• Apply their understanding of computing to program, monitor and control their products.<br><br>Cooking and Nutrition:<br><br>• Understand and apply the principles of a healthy and varied diet.<br>• Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.<br>• Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. |

| Designing:<br>Developing, planning and communicating ideas | | | | | | |
|---|---|---|---|---|---|---|
| **EYFS** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Pupils plan designs.<br><br>Pupils plan to use a range of construction tools.<br><br>Pupils evaluate the effectiveness of their design.<br><br>Pupils discuss their design with peers. | Think of own ideas for design.<br><br>Use pictures and words to plan.<br><br>Design a product for myself, following design criteria.<br><br>Work in a range of contexts (imaginary, home, school, wider community, story based). | Think of own ideas and plan what to do next.<br><br>Describe designs using pictures, diagrams, models, mock-ups, words.<br><br>Design a product for myself and others, following design criteria.<br><br>Work confidently in a range of contexts (imaginary, home, school, wider | Create a design that meets a range of requirements.<br><br>Consider the equipment and tools needed when planning.<br><br>Describe a design using an accurately labelled diagram using appropriate vocabulary. | Suggest more than one idea for how to create a product.<br><br>Gather information to help design a successful product (i.e. by asking others' views).<br><br>Produce a detailed plan with labelled diagrams, a written explanation and step-by-step guide.<br><br>Suggest improvements to | Generate a range of ideas after collating relevant information (i.e. users' views).<br><br>Produce a detailed plan, with step-by-step instructions, cross- sectional diagrams and prototypes.<br><br>Suggest alternative plans, considering the positive aspects and drawbacks of each. | Use a range of information to inform a design (i.e. market research using surveys, interviews, questionnaires or web based resources).<br><br>Produce a detailed plan, with cross-sectional diagrams and computer-generated designs).<br><br>Work within constraints, refining |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | community, story-based etc.) | | develop and refine a planned idea. | | and justifying plans as necessary. |

| **Making:** Working with tools, equipment, materials and components to make quality products. | | | | | | |
|---|---|---|---|---|---|---|
| **EYFS** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Explore a range of tools.<br><br>Discuss the effectiveness of different tools.<br><br>Follow a basic plan.<br><br>Adapt plan whilst making. | Explain what is being made and why.<br><br>Select appropriate tools and equipment for the purpose. | Explain what is being made and the intended purpose.<br><br>Choose appropriate tools and equipment, describing and explaining why they are being used. | Use a range of tools and equipment with some accuracy.<br><br>Measure, mark out, assemble and join materials and components with some accuracy. | Use a range of tools and equipment with accuracy.<br><br>Measure, mark out, join, assemble materials and components with accuracy using appropriate tools. | Use a range of tools and equipment expertly.<br><br>Consider the aesthetic qualities and functionality of my work when making. | Use a range of tools and equipment precisely.<br><br>Consider the aesthetic qualities and functionality of product as making it, refining details as necessary. |

# St. Martin's C of E VA Primary School
# Design and Technology Progression of Skills

| **Evaluating:**<br>Evaluating processes and products. | | | | | | |
|---|---|---|---|---|---|---|
| **EYFS** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Review the effectiveness of their product with peers.<br><br>Adapt product based on feedback from an adult. | Talk about own and pre-existing products, saying what is good or bad about them.<br><br>Say whether their product does what it is meant to (fits the design brief) and how it could be improved. | Describe how their own and pre-existing products work, evaluating what went well and what could be done differently.<br><br>Suggest what went well and what would be done differently when evaluating their own product. | Evaluate own and pre-existing products.<br><br>Suggest what could be changed to improve a design, beginning to link this to the design brief. | Evaluate the appearance and usability of own and pre-existing products.<br><br>Explain how the original design could be improved, considering the appearance and usability and linking this to the design brief. | Evaluate the appearance and function of a product (own and pre-existing) against the original criteria, saying whether it is fit for purpose.<br><br>Suggest improvements that could be made, considering materials and methods that have been used. | Evaluate the appearance and test the function of a product (own and pre-existing) against the original criteria, saying whether it is fit for purpose.<br><br>Suggest improvements that could be made, considering, material, methods, sustainability of the product.<br><br>Consider how much a product costs to make. |

# St. Martin's C of E VA Primary School
# Design and Technology Progression of Skills

| Technical Knowledge – Textiles | | | | | | |
|---|---|---|---|---|---|---|
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Discuss the purpose of different textiles Choose appropriate textiles for different tasks. | Cut, then join textiles using a joining technique.<br><br>Decorate using a range of items. | Cut, then join textiles using a joining technique.<br><br>Decorate using a range of items. | Cut, then join textiles using a type of stitch.<br><br>Understand seam allowances, create simple patterns and appropriate decoration techniques. | Cut, then join textiles using a type of stitch.<br><br>Understand seam allowances, create simple patterns and appropriate decoration techniques. | Cut, then join textiles using a type of stitch.<br><br>Understand seam allowances, create simple patterns and appropriate decoration techniques. | |

| Technical Knowledge – Mechanisms | | | | | | |
|---|---|---|---|---|---|---|
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Explore mechanism through play.<br><br>Explore a range of mechanisms in construction resources, book and toys. | Know about movement of simple mechanisms such as levers, sliders, wheels and axels.<br><br>Know appropriate vocabulary. | Apply knowledge about movement of simple mechanisms such as levers, sliders, wheels and axels.<br><br>Use appropriate vocabulary in context. | Know about movement of simple mechanisms such as levers and linkages then apply these to plans.<br><br>Use sheet materials and construction tools with appropriate supervision. | Know about movement of a range of mechanisms such as linkages and reinforcements, then apply these to plans. | Understand how mechanical systems such as cams, pulleys or gears create movement. | |

# St. Martin's C of E VA Primary School
# Design and Technology Progression of Skills

| Technical Knowledge – Electrical Knowledge | | | | | | |
|---|---|---|---|---|---|---|
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| | | | Begin to understand and use electrical systems in their products e.g. series circuits incorporating switches, bulbs, buzzers and motors. | Understand and use electrical systems in their products e.g. series circuits incorporating switches, bulbs, buzzers and motors. | Have a deeper understand and use electrical systems in their products e.g. series circuits incorporating switches, bulbs, buzzers and motors. | |

| Technical Knowledge – Digital World | | | | | | |
|---|---|---|---|---|---|---|
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| | | | To start comprehending the fundamental principles of computing in order to program, monitor, and control their creations. | Understand the fundamental principles of computing in order to program, monitor, and control their creations. | With growing independence, understand the principles of computing in order to program, monitor, and control their creations. | To know the principles of computing in order to program, monitor and control a product. |

# St. Martin's C of E VA Primary School
# Design and Technology Progression of Skills

| Technical Knowledge – Food and Nutrition. | | | | | | |
|---|---|---|---|---|---|---|
| EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Begin to understand some food preparation tools, techniques and processes.<br><br>Practise stirring, mixing and pouring. | Recognise different food groups and understand their importance in a healthy diet (e.g., fruits, vegetables, grains, proteins).<br><br>Identify and name common fruits and vegetables.<br><br>Participate in simple food preparation activities, such as washing fruits and vegetables or assembling a basic salad. | Understand the concept of a balanced meal that includes a variety of foods from different food groups.<br><br>Demonstrate basic food preparation skills, such as cutting soft fruits or vegetables with supervision.<br><br>Discuss and identify common sources of food, such as supermarkets, farms, or gardens | Identify and explain the main food groups and their role in a healthy diet.<br><br>Understand the importance of eating a variety of foods to obtain different nutrients.<br><br>Follow simple recipes and instructions to prepare basic savoury dishes. | Analyse and compare the nutritional content of different foods.<br><br>Make informed choices when planning and preparing a balanced meal.<br><br>Apply a wider range of cooking techniques. | Explore the impact of food choices on physical and mental health.<br><br>Demonstrate an understanding of portion control and moderation in food consumption.<br><br>Plan and prepare a variety of savoury dishes using advanced cooking techniques. | Investigate the concept of seasonality in relation to fruits, vegetables, and other ingredients.<br><br>Research and discuss ethical considerations in food production, such as animal welfare and sustainable fishing.<br><br>Gather information about regional and global food sources, understanding how different ingredients are grown, reared, caught, and processed. |