



Trinity St. Peter's

Church of England Primary School

where children shine

# Computing Curriculum Policy

Guided by Our Faith in Everything That We Say and Do

# Our School Vision



At Trinity St. Peter's, we are driven by the belief that every child is a star. In partnership with our local and global community, we equip each child with the skills, values, and mindset to shine.

We are committed to creating a school where every child feels they belong, where differences are recognised and celebrated, and where every individual is valued. Our curriculum is innovative, inclusive, and engaging, inspiring a lifelong love of learning and high aspirations.

We nurture children's growth academically, socially, emotionally, and spiritually. Through personal development and opportunities for pupil voice and leadership, we empower children to shape their futures and make a positive difference in the world.

Together, as a community, we work to ensure equity, success for all, and a deep celebration of diversity, rooted in kindness, inclusion, and mutual support.

## Computing Vision Statement:

Computing at Trinity St Peter's enables pupils to become confident, creative and responsible digital citizens who can understand, use and shape the digital world. Through practical, purposeful and engaging learning, pupils develop computational thinking, digital literacy and an understanding of how technology influences everyday life.

Our Computing curriculum develops imagination, resilience and critical thinking, preparing pupils for later life in an increasingly technological world. Pupils learn to question, explore and evaluate as digital creators, applying their knowledge to real and meaningful contexts.

# Intent

The purpose of our Computing curriculum is to equip every child with the knowledge, skills and confidence they need to thrive in a digital world. We aim to inspire pupils to think logically, work creatively and use technology safely and responsibly.

We implement the National Curriculum through the Knowsley Computing Scheme to deliver a high-quality, engaging curriculum that encourages pupils to explore, problem-solve and think computationally. The curriculum is designed to build pupils' understanding across computer science, information technology and digital literacy, with a strong focus on vocabulary, creativity and safe online behaviour.

Through hands-on experiences, purposeful projects and real-world contexts, pupils are encouraged to take risks, test ideas and learn from mistakes, developing resilience and independence as learners. Our curriculum is ambitious and aims to raise aspirations by exposing pupils to the excitement and possibilities within technology, including links to future careers.

We foster a culture of curiosity where pupils are encouraged to ask thoughtful questions, work collaboratively and communicate their ideas with confidence. Our curriculum also supports pupils' wellbeing by teaching them how to navigate the online world safely, respectfully and responsibly.

The curriculum is carefully structured using the Knowsley scheme to ensure progression of knowledge and skills, allowing pupils to build on prior learning and achieve clearly defined end points. Through this, pupils are prepared not only for the next stage of education but for life beyond school as confident, responsible and creative digital citizens.

# Implementation

All children will have consistent access to a broad, balanced and high-quality Computing curriculum which will:

- Develop pupils' understanding of computer science, information technology and digital literacy
- Build and apply a secure body of knowledge through carefully sequenced learning
- Enable pupils to work logically by writing, debugging and evaluating programs
- Encourage pupils to use digital tools creatively to design, present and communicate information
- Foster curiosity and imagination through purposeful digital projects
- Promote safe, respectful and responsible use of technology and online platforms

In addition to this curriculum, we teach Computing through the school's core values:

**Service – Hope – Imagine – Nurture - Enjoy**

## Service

Pupils learn how technology can be used to help others, improve lives and support communities. They explore real-world issues and understand how digital tools can be used responsibly to serve and support society.

## Hope

Computing encourages pupils to approach learning with hope and perseverance. Through programming and digital creation, children learn that mistakes are valuable opportunities for learning and that problem-solving requires resilience.

## Imagine

Our Computing curriculum inspires creativity and imagination. Pupils explore possibilities, design digital content and develop their own ideas using a range of media and software. They begin to see themselves as digital creators and innovators.

## Nurture

Computing provides a safe and supportive environment where pupils collaborate, share ideas and learn from one another. Pupils develop confidence using technology and understanding how to stay safe online.

## Enjoy

We want pupils to enjoy Computing, finding excitement in discovery, creation and problem-solving. Through engaging, hands-on learning, children experience the wonder of technology and develop a lifelong interest in digital skills.

In summary, guided by British and Christian values, pupils are encouraged to be respectful, responsible digital citizens. Through their learning in Computing, pupils develop an understanding of the digital world and their place within it. Carefully planned programming, digital media projects and real-life contexts inspire pupils to think logically, act safely online, solve problems creatively and believe in their ability to succeed. Our curriculum prepares pupils for the next stage of education and life in an ever-changing technological world, equipping them with the skills, confidence and resilience needed to thrive in a digital society.

# 4C Thinking Model

We also embed the school's 4C Thinking Model into all Computing lessons.

The 4C Thinking Model (Comprehend, Connect, Creative, Critical) underpins all teaching and learning in Computing. It supports pupils in developing their understanding of digital concepts, making links with prior learning and applying their knowledge across different contexts. Pupils are encouraged to think creatively when designing digital content or writing programs, and to think critically when debugging, evaluating outcomes and refining their work. Teachers plan opportunities for pupils to reflect on their processes and decisions throughout digital tasks. Thinking Maps are used where appropriate to support pupils in organising their computational thinking, structuring algorithms and presenting digital ideas effectively.

At Trinity St. Peter's we think:

- logically
- critically
- creatively
- reflectively

We use our 4C Thinking Model to help us with this:



#### Comprehend



To understand what is being taught

#### Connect



To make connections with previous learning to further thinking

#### Creative



To use knowledge to create new ideas and solve problems imaginatively

#### Critical



To make reasoned judgements that are logical and well thought out

# Vocabulary is VITAL

|                   |                                                                                                                                                                                                  |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valued</b>     | We value vocabulary in Computing and in everything we do.                                                                                                                                        |
| <b>Identified</b> | Computing vocabulary is identified by the Computing subject leader and is explicitly planned for across all units.                                                                               |
| <b>Taught</b>     | Vocabulary is explicitly taught in every lesson. STAR words are used as a teaching tool for key Computing terminology, and medium-term plans include additional vocabulary to be taught.         |
| <b>Applied</b>    | Once vocabulary is taught, it is applied. Children use their Computing vocabulary in speaking and listening, programming, digital content creation and written outcomes.                         |
| <b>Learned</b>    | Vocabulary is revisited and relearned. Key Computing terminology is embedded into long-term memory. Lesson by lesson, year by year, children revisit and relearn essential Computing vocabulary. |

We follow the STAR approach (**S**elect, **T**each, **A**ctivate, **R**evisit) to teach new or unfamiliar vocabulary.

|                                                                                                                                            |                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Our STAR Vocabulary is:</b></p>                   |  <p><b>What does it mean?</b></p>      |
|  <p><b>How does this word connect to the topic?</b></p> |  <p><b>How can I remember it?</b></p> |

# EYFS

Through an 'explosion of experiences', our youngest learners are introduced to the foundations of Computing in a playful, meaningful and hands-on way. Children explore technology through real-world scenarios, role play and outdoor learning, recognising that Computing is not just about computers. Carefully planned opportunities allow children to use programmable toys, digital drawing tools and simple apps to develop early computational thinking.

Staff model key vocabulary and support children in sequencing actions, using directional language and exploring cause-and-effect through play. Children gain confidence, control and communication skills as they 'program' each other, create digital artwork and interact with programmable devices. These experiences build the essential foundations needed for future learning and link clearly to Year 1 and beyond.

## Lesson Structure

Computing lessons follow a consistent structure to support retrieval, progression and long-term memory

| Computing lesson structure |                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part 1- Fix it             | <ul style="list-style-type: none"><li>• Time for children to revisit their learning from the previous lesson.</li><li>• Teacher will address any common misconceptions.</li></ul>                                                                                                                                                                                |
| Part 2- Recap              | <ul style="list-style-type: none"><li>• Retrieval practice of previous learnt knowledge, concepts or processes</li></ul>                                                                                                                                                                                                                                         |
| Part 3- New learning       | <ul style="list-style-type: none"><li>• New vocabulary and concepts introduced through modelling and demonstration.</li></ul>                                                                                                                                                                                                                                    |
| Part 4- Independent Task   | <ul style="list-style-type: none"><li>• Pupils apply new knowledge individually, in pairs or groups through programming, digital creation or problem-solving.</li></ul>                                                                                                                                                                                          |
| Part 5- Plenary            | <ul style="list-style-type: none"><li>• Consolidation, explanation and reasoning using correct terminology.</li><li>• Teachers have opportunity for formative assessment of the children's understanding from the lesson and any misconceptions which may need to be addressed either within this part of a lesson or at the start of the next lesson.</li></ul> |

## Oracy in Computing

Structured talk is embedded throughout Computing lessons. Pupils explain algorithms, justify predictions and evaluate digital outcomes using sentence stems such as:

- "I think this will happen because..."
- "The program shows that..."
- "This is similar to..."
- "Next time I would change..."

This strengthens pupils' ability to think and communicate as digital learners.

# Computing Long Term Plan

All our planning is based on our key principles and intent for our curriculum.

| Year Group    | Autumn 1       | Autumn 2            | Spring 1         | Spring 2               | Summer 1           | Summer 2            |
|---------------|----------------|---------------------|------------------|------------------------|--------------------|---------------------|
| <b>Year 1</b> | My Online Life | What is a Computer? | Modern Tales     | Drawing with Shapes    | Mini-Beasts        | My Friend the Robot |
| <b>Year 2</b> | My Online Life | Code a Story        | Heads Up         | Story Land             | Introducing AI     | Online Buddies      |
| <b>Year 3</b> | My Online Life | Dancing Robot       | Rainforests      | Keyboard Adventures    | Online Detectives  | T-Shirt Designer    |
| <b>Year 4</b> | My Online Life | Hour of Code        | Dinosaurs        | Minecraft Challenges   | Endangered Species | Wizard School       |
| <b>Year 5</b> | My Online Life | Making AR Games     | STEAM Challenges | YouTuber               | Binary Messages    | Web Designer        |
| <b>Year 6</b> | My Online Life | VR Worlds           | Crossy Roads     | Online Safety Dilemmas | Money              | Coding Playground   |

# Progression Documents

A comprehensive set of progression documents from Knowsley CLCs supports teachers in understanding how Computing knowledge and skills build from EYFS to Year 6. These documents ensure clear progression in vocabulary, computational thinking, coding, digital literacy and online safety across the curriculum. All progression materials are accessed by staff through the Knowsley Computing Scheme (and are not published in full here due to copyright reasons).

| <b>(CS) Coding:</b><br><b>Key Stage 1:</b> Create and debug simple programs.<br><b>Key Stage 2:</b> Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. |                                                                                            |                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                       |
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| Reception                                                                                                                                                                                                           | Year 1                                                                                     | Year 2                                                                                                                                                                                                                     | Year 3                                                                                                                                                                                                                                                                                                                                      | Year 4                                                                                                                                                                                                                                                                                                                       | Year 5                                                                                                                                                                                                                                                       | Year 6                                                                                                                                                                                                                                                                                |
| <p>The children learn:</p> <p>to experiment controlling a range of 'toys' using remote controls and do this with purpose and direction.</p>                                                                         | <p>The children learn:</p> <p>to create a simple program and correct mistakes (debug).</p> | <p>The children learn:</p> <p>to independently identify and fix a 'bug' in multiple programs.</p> <p>to create a simple program that includes a repeat x times loop.</p> <p>the difference between inputs and outputs.</p> | <p>The children learn:</p> <p>to create their own sprite in Scratch/Scratch Jr.</p> <p>about sequencing commands and adding a repeat command in a program.</p> <p>how to refine/improve a program by using the repeat command.</p> <p>how to create a variable.</p> <p>to create a program that contains selection, inputs and outputs.</p> | <p>The children learn:</p> <p>about the structure of a program and learn to plan in logical, achievable steps.</p> <p>to write a complex program, incorporating features such as selection, inputs, repetition, variables and procedures.</p> <p>attempt to debug their own programs and corrects/debugs errors in code.</p> | <p>The children learn:</p> <p>to create their own complex game within Scratch or other block based coding app that uses variables, event handling, selection ("If" and "Then"), procedures and repetition (loops) to increase programming possibilities.</p> | <p>The children learn:</p> <p>about complex programs and are encouraged to persevere when solving difficult problems even if the solution is not obvious.</p> <p>about executing and adapting common commands using a text-based language e.g. Python/Javascript/SwiftPlayground.</p> |

# Assessment in Computing

Assessment in Computing is ongoing and based on pupils' ability to understand digital concepts, apply computational thinking, create and evaluate digital content, and use technology safely and responsibly. Teachers assess pupils through:

- Observation during programming tasks, digital content creation and use of devices
- Discussion and pupil voice when explaining algorithms, predicting outcomes or evaluating digital work
- Evaluation of digital outcomes, including programs, multimedia content and online behaviours
- Review of recorded work, including digital files, screenshots, portfolios and written explanations

Assessment takes place at key points:

- Start of unit – prior knowledge, digital skills and understanding of key vocabulary
- During lessons – teacher observation, questioning, feedback and identification of misconceptions
- End of unit – assessment through digital tasks, saved work, quizzes or reflection on key learning

Assessment is used to inform future planning and ensure progression across year groups. The Knowsley Computing Scheme provides guidance and assessment materials to support teachers in making accurate judgements about pupils' attainment and progress in Computing. Lessons follow a structured approach which aligns with our whole-school focus on developing computational thinking, digital literacy and safe online practice.

## Subject Leadership and Monitoring

The Computing subject leader is responsible for monitoring the quality of teaching and learning across the school. This includes:

- Reviewing planning and curriculum coverage
- Conducting book scrutiny and reviewing digital evidence of Computing learning
- Gathering pupil voice
- Monitoring progression and outcomes across year groups
- Supporting staff through CPD and guidance

Monitoring ensures that the Computing curriculum is implemented consistently and that all pupils receive a high-quality Computing education.

# Impact

The impact of our Computing curriculum is that pupils develop confidence, creativity and responsibility in their use of technology. Our well-constructed and well-taught Computing curriculum leads to strong outcomes, with pupils demonstrating secure digital knowledge and a growing ability to think and work as digital creators and computational thinkers. Our results reflect what our children have learnt. Our philosophy is that a broad and balanced curriculum leads to strong outcomes and the successful attainment of end points at each key stage. National assessments and internal tracking systems provide useful indicators of the outcomes our children achieve.

We ensure all groups of children are given the knowledge and cultural capital they need to succeed in life. We strive to ensure that our pupils are equipped with the skills, through a growth-mindset approach, to confidently retrieve and apply key Computing knowledge from their long-term memory — including vocabulary, algorithms, digital skills and safe online behaviours.

The quality of pupils' work, at every stage, is of a high standard. Pupils are able to confidently talk about their learning, explain their thinking and use Computing vocabulary accurately when describing algorithms, digital content and online choices. All learning is built towards clearly defined end points and, at each stage of their education, we prepare our pupils for the next stage.

We ensure all our children read with increasing fluency and understanding through a focus on disciplinary literacy within Computing lessons, including reading and interpreting instructions, algorithms, digital content and online information.

The impact of the Computing curriculum is measured through the following:

- Assessment at the end of each unit of work
- Vocabulary and knowledge assessed throughout lessons and sequences
- Pupil voice
- Progress evident in children's digital portfolios, saved work and record of experiences

Policy reviewed: 2025/26

Next review: 2027/28