



How we teach *Computing* at Austrey and Newton Regis CE Primary Schools

Becoming the person God made me to be: living, learning,
loving.

"I praise you because I am fearfully and wonderfully made"
Psalm 139:14

TRUST



JUSTICE



FORGIVENESS



HOPE



DIGNITY



COMMUNITY



Summer 2024

Curriculum Statement

At Austrey and Newton Regis CE Primary Schools we take pride in providing a knowledge-rich curriculum that is inclusive and equitable, celebrates diversity and is relevant to our school; preparing children for the fullness of life in an ever-changing world.

Our Vision

Austrey and Newton Regis Church of England Schools are small schools at the heart of their rural communities. They have a living Christian foundation that follows the teaching and example of Jesus who reached out **in love** and drew in everyone, whatever their status or struggles, beliefs or views.

The biblical and theological ideas that have shaped our vision are as follows:
Created to be like God, we are all individual, different, and precious.

As a school families, we treat everyone with **dignity**, seeing each person as a vital stroke in the creation of the masterpiece which is our school **community**. We **love** and welcome everyone, supporting them in the ups and downs of life and giving them **hope** for a bright future in their **lives** and **learning**. We seek justice for all, embracing those who face challenges in their lives and learning. We act responsibly, treating everyone fairly but not necessarily the same. We work to ensure that everyone has what they need and we act and speak up for those who don't. Equity underpins our commitment to enabling everyone to flourish as the person God made them to be. Therefore, living like Jesus, we think and act with generous and **forgiving** hearts in the strategic and day to day life of the school. **Trusting** in God and the teaching of the bible, we are building a culture of **trust** in which everyone can feel safe; confident that their spiritual, emotional, and academic needs will be met and that their **uniqueness** will contribute to the **unity and wholeness** of Austrey and Newton Regis Church of England Primary Schools.

Curriculum design

Our curriculum is ambitious and is based on the national curriculum but we recognise that this is the minimum entitlement for our children. Each subject is taught as a discrete discipline. Whilst developing these, links were considered very carefully to build on knowledge and skills within each subject, across the school and across subjects. We also carefully considered diversity, environmental awareness and health education when designing our curriculum. [For the National Curriculum Document, please click here.](#)

Our learning Behaviours

Resilience

We keep going even when things are challenging. We can remain open, flexible, and willing to adapt to change, staying positive and optimistic. We invite feedback and deal positively with praise, setbacks and criticism.

Independence

We are self-motivated and show a thirst for learning. We take and manage risks, showing responsibility, initiative, creativity and enterprise. We can organise ourselves and work out goals and priorities. We play a full role in the life of the school. We can present a persuasive case for action, proposing practical ways forward.

Reflection

We evaluate the good things about our work, and the areas for improvement, acting on the outcomes. We make changes to improve our learning and communicate our learning in relevant ways to different audiences. We try to influence others, negotiating and balancing diverse views.

Resourcefulness

We think creatively by generating and exploring relevant ideas and making connections. We find links and see relationships, trying different ways to tackle a problem. We ask 'how', 'why' and 'what if?' questions. We take informed and well-reasoned decisions recognising that others have different beliefs and attitudes.

Team Work

We work cooperatively and confidently with others and listen to and take account of their views. We take an active part in our own role, and reach agreed outcomes, adapting our behaviour to suit different situations. We show fairness and consideration towards others. We take responsible action to bring improvement for others as well as ourselves.

What is Computing?

Our KS1 definition

In computing we learn about technology and use it to present our ideas. People who are trained in computing are called programmers, technicians, and software engineers.

Our KS2 definition

In computing we learn about the digital world, information, and programming. People who are trained in computing are called programmers, technicians and software engineers.

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world" DfE 2014

The national curriculum for **Computing** aims to ensure that all pupils:

- ✓ Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- ✓ Can analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems.
- ✓ Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- ✓ Are responsible, competent, confident and creative users of information and communication technology.

Intent

At Austrey and Newton Regis, it is our intent that our computing curriculum provides all of our children with a high-quality education in computing allowing access to an ever changing and expanding digital world. Our computing curriculum focuses on a progression of skills in digital literacy, computer science, information technology and online safety to ensure that children become competent in safely using, as well as understanding, technology. These strands are revisited repeatedly through a range of themes during children's time in school to ensure the learning is embedded and skills are successfully developed. Our intention is that Computing also supports children's creativity and cross curricular learning to engage children and enrich their experiences in school.

Implementation

Computing is taught as a discrete subject discipline throughout the academic year using the platform Purple Mash. We have long term plans that run on a two-year rolling programme to accommodate our mixed aged classes and to ensure full coverage during each key stage. Online safety units are spread out throughout the year to ensure children remain mindful of the importance of staying safe online.



Cycle A	Y1/2			Y3/4		Y5/6	
Autumn 1	Unit 1.1 Online safety & exploring Purple Mash- Lesson 1	Unit 2.6 Creating pictures- 5 lessons		Unit 3.2 Online safety- Lesson 1	Unit 3.6 Branching databases- 4 lessons	Unit 5.2 Online safety- Lesson 1	Unit 5.5 Game creator- 5 lessons
Autumn 2	Unit 1.1 Online safety & exploring Purple Mash- Lesson 2	Unit 1.2 Grouping and sorting- 2 lessons	Unit 2.5 Effective searching- 3 lessons	Unit 3.5 Email (including email safety)- 6 lessons		Unit 6.9 Spreadsheets (Excel)- 6 lessons	
Spring 1	Unit 1.1 Online safety & exploring Purple Mash- Lesson 3	Unit 1.4 Lego builders- 3 lessons		Unit 3.2 Online Safety- Lesson 2	Unit 3.9 Presenting (PowerPoint)- 5 lessons	Unit 5.2 Online Safety- Lesson 2	Unit 5.4 Databases- 6 lessons
Spring 2	Unit 1.7 Coding- 6 lessons			Unit 3.2 Online safety- Lesson 3	Unit 3.7 Simulations- 3 lessons	Unit 5.2 Online safety- Lesson 3	Unit 5.6 3D modelling- 4 lessons
Summer 1	Unit 2.3 Spreadsheets - 6 lessons			Unit 3.4 Touch Typing- 4 lessons	Unit 3.8 Graphing- 2 lessons	Unit 5.7 Concept maps- 4 lessons	
Summer 2	Unit 1.1 Online safety & exploring Purple Mash- Lesson 4	Unit 2.1 Coding - 5 lessons		Unit 3.1 Coding- 6 lessons		Unit 5.1 Coding- 6 lessons	



Cycle B	Y1/2		Y3/4		Y5/6	
Autumn 1	Unit 1.1 Online safety & exploring Purple Mash- Lesson 1 & 2	Unit 2.8 Presenting ideas- 4 lessons	Unit 4.2 Online safety- Lesson 1	Unit 4.7 Writing for different audiences- 5 lessons	Unit 6.2 Online safety- Lesson 1	Unit 6.5 Text adventures- 5 lessons
Autumn 2	Unit 1.1 Online safety & exploring Purple Mash- Lesson 3	Unit 2.4 Questioning- 5 lessons	Unit 3.10 Microbits - 4 lessons	Unit 4.8 Hardware investigators- 2 lessons	Unit 6.7 Quizzing- 6 lessons	
Spring 1	Unit 1.1 Online safety & exploring Purple Mash- Lesson 4	Unit 1.6 Animated story books- 5 lessons	Unit 4.2 Online Safety- Lesson 2	Unit 4.7 Effective search- 3 lessons	Unit 5.10 Microbits- 4 lessons	
Spring 2	Unit 2.2 Online safety- Lesson 1 & 2	Unit 1.5 Maze explorers- 3 lessons	Unit 4.2 Online safety- Lesson 3	Unit 4.6 Animations- 3 lessons	Unit 6.2 Online safety- Lesson 2	Unit 6.6 Networks- 3 lessons
Summer 1	Unit 2.2 Online safety- Lesson 3	Unit 1.9 Technology outside school- 2 lessons	Unit 4.2 Online safety- Lesson 4	Unit 4.5 Logo- 4 lessons	Unit 6.4 Blogging- Lesson 4	
Summer 2	Unit 1.3 pictograms- 3 lessons	Unit 2.7 Making music- 3 lessons	Unit 4.1 Coding- 6 lessons		Unit 6.1 Coding- 6 lessons	

Impact

At the end of each unit, children complete the end of unit quiz. This is used to assess children's understanding on the topic. Children's work is stored in their own digital account on Purple Mash or within the 'work done 2dos' section for their class. In order to assess if the children are committing knowledge to long term memory, we use an 'interrupting the forgetting' strategy which will include reinforcing links to previous learning both within and across the year groups, using knowledge organisers from past learning, using activities from previous learning and year groups and using skills developed in other curriculum areas.

Pupils should:

- Be enthusiastic and confident in their approach towards Computing.
- Present as competent and adaptable 'Computational Thinkers' who are able to use identified concepts and approaches in all of their learning.
- Be able to identify the source of problems and work with perseverance to 'debug' them.
- Create and evaluate their own project work.
- Have a secure understanding of the positive applications and specific risks associated with a broad range of digital technology.
- Transition to secondary school with a keen interest in the continued learning of this subject.