SS. Peter and Paul

Roman Catholic Primary School

The internet is a brilliant place to learn and explore, just remember to always be SMART!

IS FOR SAFE
Never give out personal information to strangers on the internet. Personal information includes things like your home address and your birthday.

IS FOR MEET
Never ever meet up with a stranger you have met online unless a parent or guardian has said it is ok and is present. Never, never, never, never, never.

IS FOR ACCEPTING
Don't open emails from people you don't know, they could contain viruses. If you get a strange email from a friend and you think they might have a virus make sure you let them know!

IS FOR RELIABLE
Don't believe everything you read online, check your facts! Did you read it on a reliable website like the BBC? Are other websites saying the same thing? Does it tell you where they got the information from?

IS FOR TELL
If you have an online safety problem, make sure you tell someone. Tell a parent, guardian, or teacher as soon you can.

purple mash

2Code

Computing Curriculum

Computing at SS. Peter and Paul

Curriculum Intent

St Peter and St Paul's Catholic Primary School understands the immense value that technology plays not only in supporting the Computing and whole school curriculum but overall in the day-to-day life of our school. Our aims are to fulfil the requirements of the National Curriculum for Computing whilst also providing enhanced collaborative learning opportunities, engagement in rich content and supporting pupil's conceptual understanding of new concepts which support the needs of all our pupils.

Our Computing curriculum aims to equip children with the relevant skills and knowledge that is required to understand the three core areas of Computing (Computer Science, Information Technology and Digital Literacy) and where possible to make links with Mathematics, Science and Design and Technology to offer a broad and balanced approach to providing quality first teaching of this subject. Our aim is to ensure that pupils become digitally literate and digitally resilient. Technology is ever evolving and we aim to develop pupils who can use and express themselves, develop their ideas through, information and communication technology at a suitable level for the future workplace and be active participants in a digital world.

The aims of our Computing curriculum are to develop pupils who:

- Are responsible, competent, confident and creative users of information and communication technology.
- Know how to keep themselves safe whilst using technology and on the internet and be able to minimise risk to themselves and others.
- Become responsible, respectful and competent users of data, information and communication technology.
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Can analyse problems in computational terms, and have repeated practical experience writing computer programs in order to solve such problems.
- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation through the use of PRIMM.
- Become digitally literate and are active participants in a digital world.
- Are equipped with the capability to use technology throughout their lives.
- Understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Have a 'can do' attitude when engaging with technology and its associated resources.
- Utilise computational thinking beyond the Computing curriculum.
- Understand and follow the SMART E-Safety rules.
- Understand the E-Safety messages can keep them safe online.
- Know who to contact if they have concerns.
- Apply their learning in a range of contexts, e.g. at school and at home.

Computing at SS. Peter and Paul

Curriculum Implementation
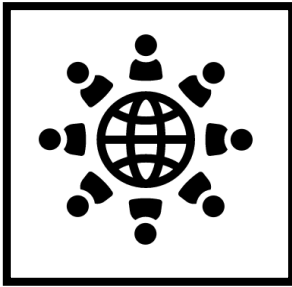
To ensure high standards of teaching and learning in Computing, we implement a curriculum that is progressive throughout the whole school. Our implementation of the Computing curriculum is in line with 2014 Primary National Curriculum requirements for KS1 and KS2 and the Foundation Stage Curriculum in England. This provides a broad framework and outlines the knowledge and skills taught in each key stage.

Computing teaching will deliver these requirements through our half-termly units. Our Computing progression model is broken down into three strands that make up the Computing curriculum. These are Computer Science, Information Technology and Digital Literacy. We use and follow the Purple Mash scheme of work from Year 1- 6, ensuring consistency and progression throughout the school. More details can be found in the Computing Termly Overview Plan.

We recognise that computing is a specialist subject and not all teachers are computing specialists. Computing lessons are taught by our teaching staff with additional support from our Computing Lead and when necessary from our member of staff in charge of IT Support. The Purple Mash scheme of work enables clear coverage of the computing curriculum whilst also providing support and CPD for less confident teachers to deliver lessons.

Lessons are broken down into weekly units, usually with two units taught per half-term. The only exception to this is the Coding units of work, which have been given the Spring Term to complete. This is to ensure that there is a greater depth of learning in this core strand. Units are practical and engaging and allow computing lessons to be hands on. Units cover a broad range of computing components such as coding, spreadsheets, Internet and Email, Databases, Communication networks, touch typing, animation and online safety.

When teaching computing teachers can follow the children's interests to ensure their learning is engaging, broad and balanced. Teachers should ensure that ICT and computing capability is also achieved through core and foundation subjects and where appropriate and necessary ICT and computing should be incorporated into work for all subjects using our wide range of interactive ICT resources.

Through our Purple Mash subscription our teachers can deliver thematic, cross curricular lessons that also follow children's interests and provide flexibility. Purple Mash has an online portal of age-appropriate software, games and activities as well as topic materials and materials to support children's learning in other subject areas for all key stages.

Computing teaching is practical and engaging and a variety of teaching approaches and activities are provided based on teacher judgement and pupil ability. We have a wide range of resources to support our computing teaching. Pupils may use the desktop computers in our Computer Suite or iPads independently, in pairs or in a group with the teacher. Teachers and pupils are also aware of the importance of health and safety and pupils are always supervised when using technology and accessing the internet.

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Curriculum Implementation
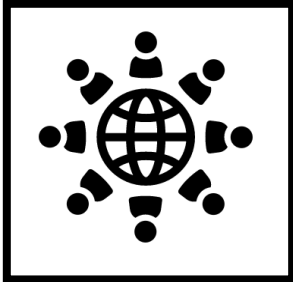
Our pupils are fully encouraged to engage with ICT and technology outside of school. Each teacher and pupil at has their own unique Purple Mash login and password. Computing work can be stored and saved using pupil log in details and homework or '2do's' can also be set for pupils to access and complete tasks at home that link with their current class learning.

We provide a variety of opportunities for computing learning inside and outside the classroom. Computing and safeguarding go hand in hand and a we provide a huge focus on internet safety inside and outside of the classroom. Additional to all pupils studying an online safety unit through their computing lessons, every year we also take part in National Safer Internet Day in February. Internet Safety assemblies are also held as well as parent internet safety workshops and parent home activities.

Early Years Foundation Stage :

Computing is not one of the areas of learning taught explicitly in Reception: it is linked to several of the ELG which are outlined below.

- Encourage sensible amounts of 'screen time'.

- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.

By the end of KS1, pupils will be taught to:

- Understand what algorithms are, how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions

- Create and debug simple programs

- Use logical reasoning to predict the behaviour of simple programs

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content

- Recognise common uses of information technology beyond school

- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

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Curriculum Implementation

By the end of KS2, pupils will be taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

2Blog

Computing

2Type

Computing at SS. Peter and Paul

Curriculum Impact

Within Computing we encourage a creative and collaborative environment in which pupils can learn to express and challenge themselves. The success of the curriculum itself will be assessed via the analysis of yearly progress data, conducting regular pupil voice sessions, learning walks and reflective staff feedback (teacher voice), monitoring of children's work, opportunities for dialogue between teachers, photo evidence and images of the pupils practical learning and skills audits. This will then inform future adaptions of the schemes of work and help to ensure that progression is evident throughout school.

In order to demonstrate that we have accomplished our aims, pupils at St Peter and St Paul's Primary School 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 progress.

Children in Foundation Stage are not directly assessed for Computing but some of the ELG directly link to this National Curriculum subject. Where possible their progress is tracked daily by the Foundation Stage teaching staff through the Tapestry App, which informs future planning. Parents are informed at the end of Reception if the children have reached the ELG expected standard for their age.

2Code
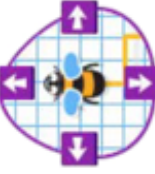
purple mash

2Email

Computing Termly Overview

Below is the school overview for Computing. Outlined are the units of work from Purple Mash to be taught across Key Stage One and Key Stage Two. During Spring Term 1 one week of learning is put aside to celebrate Safer Internet Day where work is linked to the current theme using Purple Mash resources. The Foundation document is a separate file.

Year Group	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Reception KS1 **Year 1**	1.1 Online Safety and Exploring Purple Mash.	1.4 Lego Builders — 2Paint A Picture	1.7 Coding 1.2 Grouping and Sorting (ST2) 1.9 Tech Outside School* — 2Code	Technology Around Us	1.6 Animated Stories — 2Create a Story	**Key Skills taught** ready for KS1 transition / **Key Skills taught** — 1.5 Maze Explorers **Key Skills taught assessed** — 2Go
Number of weeks	3 + 3	5	6	2+2* (ST2)	3	3+3
KS1 **Year 2**	2.2 Online Safety **Key Skills recap and extension**	2.8 Presenting Ideas — 2Publish	2.1 Coding 2.7 Making Music (ST2) — 2Code	2Sequence	2.4 Questioning — 2Count	2.5 Effective Searching **Key Skills assessed** — Effective Internet Searches
Number of weeks	3 + 3	4	5	3 (ST2)*	5	3

* ST2 means this is to be taught in the Spring Term 2 if all of the Coding Unit is completed. If this is not possible, this unit will be added to the Summer Term.

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Computing Termly Overview

Year Group	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
LKS2 Year 3	3.2 Online Safety **Key Skills recap and extension** ^Ⓕ	2.3 Spreadsheets^ 3.3 Spreadsheets 2Calculate	3.4 Touch Typing 3.1 Coding 2Code	3.1 Coding 3.4 Touch Typing (ST2) 2Type	3.5 Email 2Email	3.9 Presenting with Google Slides **Key Skills assessed** ^Ⓕ Slides
Number of weeks	3	3 + 3	6	4 (ST2)*	6	5
LKS2 Year 4	4.2 Online Safety **Key Skills recap and extension** ^Ⓕ	4.5 Logo 2Logo	4.1 Coding (Crash Course) 4.7 Effective Searching (ST2) 2Code	Google search bar	4.8 Hardware Investigators Computer Parts Pairs	4.6 Animation Key Skills assessed **Key Skills assessed** ^Ⓕ 2Animate
Number of weeks	4 + 2	4	6	3 (ST2)*	2	3

* ST2 means this is to be taught in the Spring Term 2 if all of the Coding Unit is completed. If this is not possible, this unit will be added to the Summer Term.

^ means this unit will be used in conjunction with 3.3 if the children are finding the unit for Y3 too challenging.

Computing Termly Overview

Year Group	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
UKS2 Year 5	5.2 Online Safety **Key Skills recap and extension**	5.3 Spreadsheets 2Calculate	5.1 Coding (Crash Course) 5.6 3D Modelling 2Code	5.6 3D Modelling (ST2) 2Design and Make	5.7 Concept Maps 2Connect	5.5 Game Creator **Key Skills assessed** 2DIY3D
Number of weeks	3 + 2	6	6	4 (ST2)*	4	5
UKS2 Year 6	6.2 Online Safety **Key Skills recap and extension**	5.4 Databases 2Investigate	6.1 Coding (Crash Course) 6.6 Networks (ST2) 2Code	6.6 Networks (ST2)	6.7 Quizzing 2Quiz	6.5 Text Adventures Key Skills assessed **Key Skills assessed** 2Create a Story
Number of weeks	2 + 3	4	6	3 (ST2)*	6	5

*ST2 means this is to be taught in the Spring Term 2 if all of the Coding Unit is completed. If this is not possible, this unit will be added to the Summer Term.

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