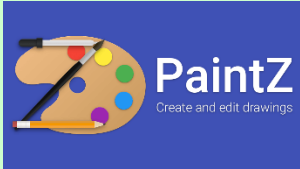






Year 1 – Autumn 1

Computing systems and networks - Technology around us

Previous Knowledge and Skills	Future Learning on this skill
<ul style="list-style-type: none"> Creating, logical thinking, algorithms and decomposition of a task (Barefoot Computing) 	<p>Year 2 – Information technology all around us</p> <p>Year 3 – Connecting Computers</p> <p>Year 4 – The Internet as a system</p> <p>Year 5 – Systems and Searching</p> <p>Year 6 – Communication and Collaboration</p>

Key Technology we will use	Links to the National Curriculum
  <p>keyboard</p>  <p>mouse</p>	<ul style="list-style-type: none"> Recognise common uses of information technology beyond school Use technology purposefully to create, organise, store, manipulate, and retrieve digital content 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

Key Vocabulary

We want you to remember these words.

technology – the use of knowledge to invent new devices	keyboard – a row of keys that let you put letters or symbols into the computer
computer – a machine that stores information	screen – a surface which electronic images are displayed
mouse – a device that lets you point to the screen and select items	double-click – pressing the mouse button twice without moving it
trackpad – a flat pad for your fingers that you use to move around a screen	typing – writing on a computer using a keyboard

Key knowledge and skills

The 'stuff' we want you to remember.

To be able to choose a piece of technology to do a job.	To identify the main parts of a computer.
To recognise that some technology can be used in different ways.	To use a mouse in different ways.
To use a keyboard to type and edit text	To be able to use technology safely.

Focus question: How is technology all around us?

“Every child is a unique child of God.”



WHINMOOR



ST. PAUL'S

Year 2 – Autumn 1

Computing systems and networks - Information technology around us

Previous Knowledge and Skills	Future Learning on this skill
<ul style="list-style-type: none"> In Year 1, children learnt about what technology is in the broad sense, outside of the digital context. In Year 1, children learn the different elements that make up a computer e.g. mouse and keyboard. 	<p>Year 3 – Connecting Computers - to explain how a computer network can be used to share information</p> <p>Year 4 – The internet as a system- to recognise that the World Wide Web is part of the Internet</p> <p>Year 5 – Systems and Searching</p> <p>Year 6 – Communication and Collaboration</p>
Key Technology we will use	Links to the National Curriculum
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Microsoft PowerPoint</p> </div> <div style="text-align: center;">  <p>Google Slides</p> </div> </div>	<ul style="list-style-type: none"> 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
Key Vocabulary	
<i>We want you to remember these words.</i>	
Information Technology (IT) – to use of computers and other devices to store electronic data	computer – an electronic device that can input, output, store and process information known as data
Barcode -a visual representation of data that is readable by a machine	scanner – a device that is used to capture information
scan – process of capturing information using a device such as a scanner	
Key knowledge and skills	
<i>The 'stuff' we want you to remember.</i>	
To describe some uses of computers.	To identify information technology in school.
To identify information technology beyond school.	To show how to use information technology safely.
Focus question: How do we use technology in our world?	

“Every child is a unique child of God.”

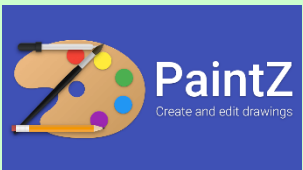


WHINMOOR



ST. PAUL'S
C of E Primary School

Year 3 – Autumn 1

Computing systems and networks - Connecting computers

Previous Knowledge and Skills	Future Learning on this skill
<p>Year 1 - To identify the main parts of a computer.</p> <p>Year 2 - To identify information technology in school.</p> <p>Year 2 - To identify information technology beyond school.</p>	<p>Year 4 - To be able to describe how networks can connect to other networks.</p> <p>Year 4 - To be able to outline how information can be shared on the World Wide Web.</p> <p>Year 5 - To describe the input and output of a search engine.</p>
Key Technology we will use	Links to the National Curriculum
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;">  </div> <div style="margin-bottom: 20px;">  <p>Wireless Access Point (WAP)</p> </div> <div>  <p>School Server</p> </div> </div>	<ul style="list-style-type: none"> • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • 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 • 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
remember these words.	
digital device – an electronic device that can receive, store, process and send digital information	output – when a device sends information back out again e.g. a speaker
input – information that it put into a device	program – a list of instructions for the computer to complete
process – this decides what the device does with the input	Wireless Access Point (WAP) – a box that allows people to connect to a network with no wires (Wi-Fi)
connection – when a device is joined to another or has connected to a nearby network	network – two or more computers that are connected together
server - computers whose only purpose is to send information to other computers	

Key knowledge and skills
The 'stuff' we want you to remember.

To identify input and output devices.	To explain how a computer network can be used to share information
To explain that a computer system accepts an input and processes it to produce an output.	To explain the role of a switch, server and wireless access point in a network.
To identify network devices around me.	To explain how networks can be connected to other networks.

Focus question: How is our school connected?

“Every child is a unique child of God.”

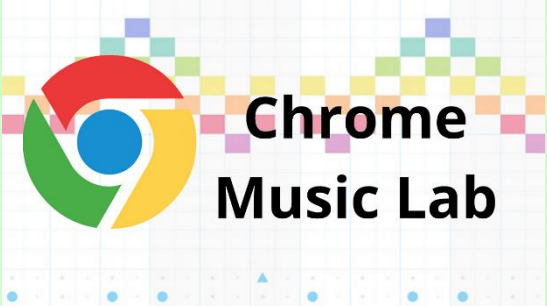

WHINMOOR



ST. PAUL'S
C of E Primary School

Year 4 – Autumn 1

Computing systems and networks - Connecting computers - The internet

Previous Knowledge and Skills	Future Learning on this skill
<p>Year 3 - To explain how networks can be connected to other networks</p> <p>Year 3 - To identify network devices around me.</p> <p>Year 3 – Key Words – Wireless Access Point and network</p>	<p>Year 5 - To demonstrate that different search terms produce different results.</p> <p>Year 5 - To describe the input and output of a search engine.</p> <p>Year 6 - To be able to outline how information can be shared on the World Wide Web.</p>
Key Technology we will use	Links to the National Curriculum
 	<ul style="list-style-type: none"> • 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.
Key Vocabulary	
<p><i>We want you to remember these words.</i></p>	
<p>Wireless Access Point (WAP) - a box that allows people to connect to a network with no wires (Wi-Fi)</p>	<p>download – transferring data from one device to another</p>
<p>website – a collection of files accessed through a web address</p>	<p>security – the protection of computer systems from harm, theft and unauthorised use.</p>
<p>router – a device that sends one data packet to another on the same network</p>	<p>network - two or more computers that are connected together</p>
<p>web browser – a computer program for reading pages of the World Wide Web</p>	<p>internet – a giant network of computers connected across the world</p>
Key knowledge and skills	
<p><i>The 'stuff' we want you to remember.</i></p>	
<p>To be able to describe how networks can connect to other networks.</p>	<p>To recognise that the World Wide Web is part of the Internet.</p>

To be able to outline how information can be shared on the World Wide Web.

To recognise the need for security on the Internet.

Focus question: How are networks, the internet and computers connected?

“Every child is a unique child of God.”


WHINMOOR



SIT PAUL'S
C of E Primary School

Year 5 – Autumn 1

Computing systems and networks - systems and searching

Previous Knowledge and Skills	Future Learning on this skill
<p>Year 1 – Key Word algorithm</p> <p>Year 2 - To identify information technology beyond school.</p> <p>Year 3 – To be able to identify different input and output devices.</p> <p>Year 4 - To be able to outline how information can be shared on the World Wide Web.</p> <p>Year 4 - To recognise that the World Wide Web is part of the Internet.</p>	<p>Year 6 - To outline methods of communicating and collaborating using the internet.</p>
Key Technology we will use	Links to the National Curriculum
<p>World Wide Web</p> <p>Different search engines</p> 	<ul style="list-style-type: none"> 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
Key Vocabulary	
<p><i>We want you to remember these words.</i></p>	
<p>search engine – a program that finds web pages on the internet.</p>	<p>web crawler – an automated program that browses the web and stores information about the webpages it visits</p>
<p>refine – to make something clearer by making it more specific</p>	<p>selection – a decision or question which a program may ask if more than one option is available</p>
<p>index – a pointer to data in a table</p>	<p>ranking – a particular position, higher or lower than others</p>
<p>algorithm – a list of rules to follow in order to complete a task or solve a problem</p>	<p>system – a combination of hardware and software that be programmed to perform a task.</p>
Key knowledge and skills	
<p><i>The 'stuff' we want you to remember.</i></p>	
<p>To describe the input and output of a search engine.</p>	<p>To evaluate the results of search engines.</p>
<p>To demonstrate that different search terms produce different results.</p>	<p>To be able to explain the way search results are selected using web crawlers.</p>
Focus question: How do computer systems help us?	

“Every child is a unique child of God.”

WHINMOOR



ST. PAUL'S
C of E Primary School

Year 6 – Autumn 1

Computing systems and networks - Communication and collaboration

Previous Knowledge and Skills

Year 2 - To show how to use information technology safely.

Year 3 - To explain how networks can be connected to other networks

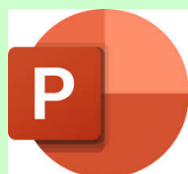
Year 3- To identify network devices around me.

Year 4 - To be able to describe how networks can connect to other networks.

Year 4 – To recognise the need for security on the Internet.

Year 5 - To demonstrate that different search terms produce different results.

Key Technology we will use



Microsoft
PowerPoint



Google
Slides



padlet

Links to the National Curriculum

- 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
- 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

Key Vocabulary

We want you to remember these words.

protocol – a system of rules about the correct way to act in formal situations

data payload – data transmitted over a network or communication system

Internet Protocol (IP) – a set of rules for routing packets of data so that they can travel across networks and arrive at the correct destination.

slide deck – a collection of slides organised together to form a presentation

Domain Name Server (DNS) – a network of directories to change website addresses to IP addresses

public – something that is accessible or visible to the public

packet header – information about the data such as where it has come from and its IP address.

private – restricted access for a particular group or person

Key knowledge and skills

The 'stuff' we want you to remember.

To outline methods of communicating and collaborating using the internet.	To choose methods of internet communication and collaboration for given purposes.
To evaluate different methods of online communication and collaboration.	To decide what you should and should not share online.

Focus question: How can we use the internet to communicate with the world?