

YEAR 6

	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Computing Systems and Networks	<p>The three Prime ELGS of Communication and Language, PSED and Physical Development provide the foundations of which all other learning is built upon.</p> <p>No Specific ELG links.</p>	To become familiar with different components of a computer, linking technology to their everyday lives.	To develop understanding of IT, linking technology to the wider world and the importance of using it responsibly.	To develop understanding of digital and non-digital devices with a focus on inputs, processes and outputs. To be introduced to computer networks.	To apply knowledge of networks to the internet and explore the World Wide Web, ownership, content, access and creation.	To develop understanding of computer systems and learn how information is transferred between systems. To participate in a collaborative online project.	To learn about the World Wide Web as a communication tool. To explore how search engines, work and what influences searching.

Computing Systems and Networks
COMPOSITES

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

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

COMPONENTS							
	1	2	3	4	5	6	End Point
	How are computers connected together to form systems?	Do I recognise the role of computer systems in our lives?	How is information transferred over the internet?	Can I explain how sharing information online lets people in different places work together?	Can I contribute to a shared project online?	Can I evaluate different ways of working together online?	Children will demonstrate their knowledge and understanding of computing systems and online collaborative working through a shared project.

CONCEPTS Link to concept map	Computing Systems and Networks Information Technology Computer Systems	Computing Systems and Networks Information Technology Computer Systems	Computing Systems and Networks Information Technology Computer Systems	Computing Systems and Networks Information Technology Digital Literacy Computer Systems	Computing Systems and Networks Information Technology Digital Literacy Computer Systems	Computing Systems and Networks Information Technology Digital Literacy Computer Systems	Computing Systems and Networks Information Technology Digital Literacy Computer Systems
SKILLS	Describe that a computer system features inputs, processes, and outputs Explain that computer systems communicate with other devices	Identify tasks that are managed by computer systems Identify the human elements of a computer system	Recognise that data is transferred using agreed methods Explain that networked digital devices have unique addresses	Recognise that connected digital devices can allow us to access shared files stored online Send information over the internet in different ways	Compare working online with working offline	Identify different ways of working together online Explain how the internet enables effective collaboration	Children will show that they can work collaboratively on an on-line project, without communicating verbally. This will be evaluated and compared to working together 'unplugged'.
KNOWLEDGE	know that systems are built using a number of parts	understand the benefits of a given computer system	know that data is transferred over networks in packets	understand that the internet allows different media to be shared	suggest strategies to ensure successful group work make thoughtful suggestions on my group's work	recognise that working together on the internet can be public or private	Children will understand how a system works, recognising the human role in the process. They will demonstrate an understanding of shared media using the internet.
LESSON LINK	Computing systems and networks – Sharing information	Computing systems and networks – Sharing information	Computing systems and networks – Sharing information	Computing systems and networks – Sharing information	Computing systems and networks – Sharing information	Computing systems and networks – Sharing information	
PROGRESSIVE VOCABULARY	system, connection, digital, input, process, output	system, connection, digital, input, process, output	protocol, address, packet	chat, explore, slide deck	chat, explore	reuse, remix, collaboration	Children will be able to understand, articulate and use the vocabulary.
CURRICULUM EXPERIENCES			Activity 3 of the plan.				
END POINT	This lesson introduces children to the	In this lesson, pupils will consider how	This lesson introduces the idea that parts of a	In this lesson, children will consider how	In this lesson, the pupils will reflect on how	In the previous two lessons, the children have	

	<p>concept of a system. Learners will develop their understanding of components working together to make a whole. They will explore how digital systems might work and the physical and electronic connections that exist.</p>	<p>larger computer systems work. children will consider how devices and processes are connected. They will also reflect on how computer systems can help us.</p>	<p>computer system are not always in the same place or country. Instead, those parts of a system must transfer information using the internet. This lesson builds on the introduction to the internet in the Year 4 unit of work 'What is the internet?', adding awareness of IP addresses and the rules (protocols) that computers have for communicating with one another.</p>	<p>people can work together when they are not in the same location. They will discuss ways of working and start a collaborative online project. The online activity assumes that the pupils can make simple slides including text and images. If your learners are unsure how to do this, you may wish to spend some time on the Year 3 'Desktop publishing' unit before this lesson.</p>	<p>they worked together in the previous lesson and how their working together might be improved. The children will work together on an unplugged activity and use that experience to develop their own ideas of good collective working practices.</p>	<p>worked together online on a shared project. This lesson introduces another approach to online working: reusing and modifying work done by someone else. (Using someone else's work needs to be done within the bounds of copyright and with the relevant permissions.) This lesson uses the Scratch programming tool, which allows the pupils to use other people's work.</p>	
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