Medium term Plan for Computing		
Year 3- Computer Systems and Networks - Autumn 1		
 Networks 		**Hook:** Video- Network Rap and String model. Children will watch and listen to the network rap giving them an introduction to the key elements of the unit. Children will then use a ball of wool to play a game to represent how many connections/how complicated a network can be
Topic Outcome: Children will be able to recognise that a network is two or more devices connected for a purpose and will be able to recognise and name the key components of a school's network. Children will be able to example the difference between wired and wireless connections and describe the journey of a file		**Topic Reflection:** Children will share their understanding of transferring data and networks as a class, using their knowledge to explain in detail how network connection allows for an easy transfer of data.
	Statutory requirements:	**Vocabulary**
<u>KS1 Statutory Requirements</u> • Use technology safely and respectfully • Understand the basic components of a computer 	<u>KS2 Statutory Requirements</u> • Understand computer networks including the internet. • Understand how computer networks provide multiple services such as the world wide web. • To understand the opportunities networks, provide to communicate and collaborate	<u>Tier 1:</u> Device, file, internet, network, network switch, router, server, user, WiFi, wired, wireless. <u>Tier 2:</u> The cloud, component <u>Tier 3:</u> Packet data, wireless access point. 
<u>Previous Skills</u> Children can log in and out and save their work. Children can recognise devices connected to the	<u>Previous Knowledge</u> Children know that 'log in' or 'log out' means to start or end a connection with a computer.	<u>Previous Understanding</u> Children know how to log in and understand how to navigate a computer more purposely. Children

internet. Children can use a basic range of tools within editing software. Children can match inputs to outputs. Children know how to use word processing software.	Children know that passwords are important for security and to keep us safe. Children know that all computers have 'inputs' and 'outputs'.	understand how to drag, drop, click and control the cursor using a mouse. Children know that technology follows instructions and can recognise different types of technology. .

	Concept	Lesson Outcome	Lesson Outcome	Success criteria	Vocabulary
Lesson 1	What is a network?	LO: To recognise what a network is.	Children will learn about networks and how they work across schools.	I can explain the purpose of a network. I can name the key parts of a network. I can explain the difference between a wired and wireless connection. I can identify which components can be connected.	Component, network, network map, network switch, router, server, wifi, wired, wireless, wireless access points.
Lesson 2	A file's journey.	LO: To demonstrate how information moves around a network.	Children will develop an understanding of how a file is shared between two devices on a network.	I can discuss the journey of a file. I can explain parts of a network. I can identify real-world networks.	Device, file, network, network switch, router, server, wired, wireless, user
Lesson 3	How a website works.	LO: To demonstrate how a website works.	Children will learn how to share information and images from a website.	I can recognise that the internet is a network. I can list the parts of a network needed for a website to work. I can recognise the role of the cloud.	File, server, the cloud, user, user request, website.

Lesson 4	Routers	LO: To explore the role of a router.	Children will learn about the role of a router.	I can recognise the role that a router plays in a network. I can give examples of how a router is used. I can explain what a router does.	Internet, network, router, server.
Lesson 5	What is packet data.	LO: To identify the role of packet data.	Children will learn about the role of packet data.	I can recognise that data is transferred across the internet. I can explain that routers connect to send information. I can demonstrate that data can be too big to send whole.	Packet data, route, router, server.
Endpoints:	Knowledge: I know that a network is a group of interconnected devices. I know the components that make up a network. I know that a server is central to a network and responds to requests made. I know that the internet connects all the networks around the world. I know that a router connects us to the internet. I know what a packet is and why it is important for website data transfer. Skills: I can understand the purpose of routers. I can understand the role of the key components of a network, whether they are wireless or not and what the purpose of a network is. I can understand that websites and videos are files that are shared from one computer to another. I can begin to understand the role of packets I can use word processing software to type and reformat text.				

	I can recognise the links between networks and the internet. I understand how data is transferred.