


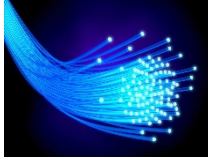
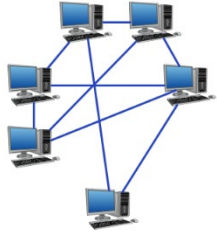







Computer Science	How computers communicate (networks)	Year 8	Term 5
<p>Week 1: Why do computers need to talk?</p> <p>Two or more computers connected to share data is known as a network.</p>	<p>Week 2: Network hardware</p> <p>Ethernet cables are copper cables that can connect one computer physically to another. They have a special connector that will plug into the network port of the computer.</p> 	<p>Week 3: Types of network</p> <p>Star networks have one computer in the middle – usually called a server. This then connects to every other computer in the network.</p> 	
<p>Networks are important because computers can share files, software and other data with each other, without you having to pass physical memory to each other.</p>	 <p>Network Interface Cards are a special printed circuit board that are designed to send and receive the messages from one computer to another. They have a special port that fits the ethernet cable.</p>	<p>The problem with a star network though is that if the server crashes or fails, the whole network fails as it can no longer send and receive messages.</p>	
<p>Networks can also share hardware, such as printers. Not every computer need a printer all of the time, so this saves money. It also means that every computer can print when they need to.</p>	<p>Fibre Optic cables are a faster way of sending data. Rather than electricity, these cables use light to send signals.</p> 	<p>Mesh networks are one of the most expensive, but also most reliable network types. Every computer connects to every computer.</p> 	
<p>Networks can be small and local to one building, such as a school or a house. This is a LAN, or Local Area Network.</p>	<p>Wireless Access Points (wireless routers) are what send and receive WiFi radio signals to create a wireless network.</p>	<p>If a computer in a mesh network fails, the rest of the network can still send and receive data between each other.</p>	
<p>Networks can be global, such as the internet.</p>	<p>Routers work by connecting all of the devices in a network together. They will give each computer its own special address. They will also decide the best way to send data through the network.</p>	<p>A computer connected to a server is known as a client.</p>	
<p>Extension QR Codes – Follow the links to find out information on sequence, selection, iteration and more</p>			
			

Week 4: Network Project	Week 5&6: Assessment Prep	Week 7: Network Project
Microsoft PowerPoint is an example of presentation software. This is specifically designed to allow you to present information to people.	Hardware is the physical parts of a computer. These are the parts that send and receive electrical signals, such as the mouse, keyboard, motherboard, CPU and RAM.	A hyperlink is a way of connecting different documents together. We can use hyperlinks on text, images and even shapes.
We create slides to write on in a presentation.	A CPU is made up of millions of different circuits. Circuits inside of the CPU are called transistors.	Animations are a way of making contents of your presentation appear or disappear when you want them to.
Writing can only be added to a presentation through text boxes.	Transistors connected together in specific ways are known as logic gates. There are three logic gates that we have looked at: AND OR NOT	Transitions are a way of making one slide switch to another.
Formatting is the way that something looks: its colour, its layout, the font of text, the placement of images etc.	Logic gates turn on and off. When they are on we use a 1 and when they are off we use a 0. This links directly to the binary number system that we use in computing.	Notes pages in a presentation are a way of actually providing extra information to the presenter or the person reading the presentation.
<p>We can format lots of different parts of our presentation:</p> <ul style="list-style-type: none"> • The background • The text (font) style • The text colour • Lines around images and boxes • Image and shape sizes and colour 	Binary is the language of all computers. One binary digit is known as a bit. We normally work with a sequence of 8 bits; known as a Byte.	<p>We can run our presentation by either:</p> <ol style="list-style-type: none"> 1. Pressing this icon in PowerPoint  2. Click on SlideShow → From Beginning 3. Pressing F5 on our keyboards 
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