



Year 3 – Connecting Computers



Rationale: During this unit, learners develop their understanding of digital devices, with an initial focus on inputs, processes, and outputs. They also compare digital and non-digital devices. Following this, learners are introduced to computer networks, including devices that make up a network's infrastructure, such as wireless access points and switches. The unit concludes with learners discovering the benefits of connecting devices in a network. Progression: This unit progresses students' knowledge and understanding of technology by focussing on digital and non-digital devices, and introducing the concept of computers connected together as a network. Following this unit learners will explore the internet as a network of networks

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Overview:	Subject Knowledge
Lesson 1: How does	Lesson 1: You will need an understanding of digital and non-digital devices. The key
a digital device	difference is that a digital device is capable of some processing, i.e. it has functions beyond
work?	being either on or off. You will also need to be familiar with the concept of input, process,
Lesson 2: What parts	output (IPO) which underpins all digital devices. There are cross-curricular links with maths
make up a digital	for IPO which can be referenced during this lesson.
device?	Lesson 2: You will need to be familiar with the inputs and outputs of a range of digital
Lesson 3: How do	devices and you will need an understanding that devices can have one input which leads
digital devices help	to several outputs (e.g. starting a video leads to outputs from the screen and the speaker)
us?	and that many inputs can lead to one output (e.g. using a mouse and keyboard to produce
Lesson 4: How am I	a document).
connected?	Lesson 3: You will need to be familiar with your chosen digital paint program, including the
Lesson 5: How are	draw, fill, edit and undo functions.
computers	Lesson 4: You will need a basic understanding of how information (data) flows around a
connected?	computer network, and how this benefits us. You will also need to know that a network
Lesson 6: What does	switch manages the way in which data moves around a network.
our school network	Lesson 5: This lesson requires further knowledge of a simple school network. It introduces
look like?	a server, which for the purposes of this lesson is defined as a location to store files (they
	can, and usually do, carry out more functions than this). It also introduces wireless access
	points, which send and receive wireless signals from wireless devices such as tablets or
	laptops. There is likely to be a wireless access point in most classrooms or communal areas
	in school. It will be connected to the network via a physical cable.
	Lesson 6: You will need to be familiar with how the main devices (network switch, server,
	wireless access point, router, printer/copier) on your school's network are connected with

one another and where the devices are located. You may wish to discuss this with the IT technician prior to the lesson.

Assessment/Key Skills

Formative assessment

Assessment opportunities are detailed in each lesson plan. The learning objective and success criteria are introduced in the slide deck at the beginning of each lesson and then reviewed at the end. Learners are invited to assess how well they feel they have met the learning objective using thumbs up, thumbs sideways, or thumbs down.

Summative assessment

There are ten multiple choice questions in the quiz at the end of the unit. The questions are drawn from all six lessons. Please see the assessment question and answer documents for this unit.