



Year Group:	2	Strand: 1	Computing Systems and Networks
How do digital devices help us?			
Key NC Objectives	<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 		
Unit Objectives	<ul style="list-style-type: none"> Recognise the uses and features of information technology in the world around us Understand how technology in the home, school and wider world is used and how it benefits us. Recognise and use a range of output devices, e.g. printer, speakers, monitor/screen Recognise that a range of devices contain computers e.g. washing machines, cars ect. Understand how to use technology safely Understand that all devices, programs, websites, apps and games are designed, manufactured and programmed by real people to fulfil specific tasks. 		
Suggested learning activities	<ul style="list-style-type: none"> Explore what information technology is and identify devices which are computers and consider how IT can help us both at school, at home and in the wider world. See Teach Computing materials: https://teachcomputing.org/resources Year 2 Unit - Computing Systems and Networks, Lesson 1, Lesson 2 and 3 Take photos and create document or use photos and add labels showing the main parts of a computer including input and output devices. Explore how information technology improves our world with a focus on barcodes in a shop. See Teach Computing materials: https://teachcomputing.org/resources Year 2 Unit - Computing Systems and Networks, Lesson 1, Lesson 2 and 3 Create a poster (recapping creating media skills form Year 1 Summer Term Unit) on Information Technology in the World and how it helps us. Use this as an assessment for pupils to demonstrate knowledge learnt about technology. 		
Extra Links and Planning Resources	Recap mouse and keyboard skills throughout the unit: Typing Activity: BBC Dance Mat https://www.bbc.co.uk/bitesize/topics/zf2f9j6/articles/z3c6tfr Mouse Control Activities: https://www.happyclicks.net/click-tap-games/index.php https://scratch.mit.edu/projects/56751348/ https://scratch.mit.edu/projects/56752010 How do people use computers? https://www.bbc.co.uk/bitesize/topics/zymkqt/articles/zcmyvcw https://www.twinkl.co.uk/resource/t-i-097-computer-parts-and-devices-photo-powerpoint		
Online Safety	<p>Password safety Recap why we use passwords and why we don't share them with anyone else.</p> <p>Using a computer responsibly Recap rules about how to use a computer responsibly.</p> <p>Screen Time and Sleep Explore appropriate screen time per day and how devices need to be turned off at bed time. See lesson on Screen time and sleep in Sheffield Online Safety Curriculum.</p> <p>Digital 5 a day Explore what digital 5 a day is and different activities that children can do online. See lesson on Digital 5 a Day in Sheffield Online Safety Curriculum. See Teach Computing materials: https://teachcomputing.org/resources Year 2 Unit - Computing Systems and Networks, Lesson 5 and 6</p>		
Previously Taught Vocabulary	Click, Computer, Double Click, Mouse, Input Device, Keyboard, Screen, Password, Technology		
New Key Vocabulary	<p>Bar Code: a machine readable code which has numbers and lines.</p> <p>Device: something made for a particular purpose e.g. electronic device.</p>	<p>Information Technology: use of a systems for storing, retrieving, and sending information.</p> <p>Output Device: something you connect to a computer that has information sent to it.</p>	



<p>Core Substantive Knowledge</p>	<p>You should have a clear understanding of devices which can be described as information technology (IT). For younger learners, IT can be seen as computers, devices with computers inside, or things made to work with computers.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Computers: PCs, laptops, tablets. • Devices with computers inside: e-book readers, smart TVs, smart speakers. • Things made to work with computers: scanners, barcode scanners, barcode labels, printers. <p>Technology continues to develop rapidly and some devices may fit in multiple categories. For example, a multifunction printer has a computer (processor) inside. It can also work with a computer or independently.</p> <p>You will need to understand where technology can be found in shops and how it can be used. You should also know which devices can work together, for example:</p> <ul style="list-style-type: none"> • Barcode, barcode scanner, till • Bank card, chip and PIN card reader, till • Traffic light, crossing button, crossing signal <p>You can find some useful information and a short video about barcodes at www.waspbarcode.com/buzz/barcode</p>
<p>Prior Knowledge</p>	<p>Pupils secure in the Y1 unit could:</p> <p>Pupils can name a range of digital devices in the home and at school. They can explain what the basic parts of a computer are used for, e.g. mouse, screen, and keyboard. Pupils can use a mouse to click and drag around the screen and use a keyboard to type a simple sentence. Pupils can use a simple password when logging on and understand the rules around using technology safely and responsibly in school and at home.</p>
<p>Assessment</p>	<p>Pupils that are secure in this unit can:</p> <p>Pupils can name a range of digital devices in the home, at school and used in the wider world explaining how the technology helps us. They can explain what the parts of a computer are used for, e.g. mouse, screen, and keyboard and which devices are input devices and which are output devices (printer, speaker). Pupils understand how technology can benefit us in the wider world and how barcodes are used in shops. Pupils use a word processing document to create a poster explaining about technology. Pupils can use a simple password when logging on and understand the rules around using technology safely and responsibly in school and at home. Pupils understand the importance of sleep and limited sleep times and have a knowledge of digital 5 a day which introduces a variety of activities that can be completed online.</p> <p>This will be assessed through outcomes, observations and questioning in lessons.</p>