Year 2 – Information technology around us

Unit introduction

Learners will develop their understanding of what information technology (IT) is and will begin to identify examples. They will discuss where they have seen IT in school and beyond, in settings such as shops, hospitals, and libraries. Learners will then investigate how IT improves our world, and they will learn about the importance of using IT responsibly.

Software and Hardware requirements

Pupils will need access to either Google Slides or Microsoft PowerPoint for some of the activities in this unit.

If you've adapted this unit to better suit your school, please share your adapted resources with fellow teachers in the STEM community. Alternatively, if this unit isn't quite right for your school, why not see if an adapted version which better suits has already been shared?

Overview of lessons

Lesson	Brief overview	Learning objectives
1 What is IT?	Learners will develop their understanding of what information technology (IT) is. They will identify devices that are computers and consider how IT can help them both at school and beyond.	To recognise the uses and features of information technology • I can identify examples of computers

		- I can describe some uses of computers - I can identify that a computer is a part of IT
2 IT in school	Learners will consider common uses of information technology in a context that they are familiar with. They will identify examples of IT and be able to explain the purpose of different examples of IT in the school setting.	To identify the uses of information technology in the school - I can identify examples of IT - I can sort school IT by what it's used for - I can identify that some IT can be used in more than one way
3 IT in the world	Learners will begin to explore IT in environments beyond school, including home and familiar places such as shops. They will talk about the uses of IT in these environments and be able to explain that IT is used in many workplaces.	To identify information technology beyond school - I can find examples of information technology - I can sort IT by where it is found - I can talk about uses of information technology
4 The benefits of IT	Learners will explore the benefits of using IT in the wider world. They will focus on the use of IT in a shop and how devices can work together. Learners will sort activities based on whether they use IT or not and will be able to say why we use IT.	To explain how information technology helps us I can recognise common types of technology

		• I can demonstrate how IT devices work together • I can say why we use IT
5 Using IT safely	Learners will consider how they use different forms of information technology safely, in a range of different environments. They will list different uses of IT and talk about the different rules that might be associated with using them. Learners will then say how rules can help keep them safe when using IT.	To explain how to use information technology safely • I can list different uses of information technology • I can talk about different rules for using IT • I can say how rules can help keep me safe
6 Using IT in different ways	Learners will think about the choices that are made when using information technology, and the responsibility associated with those choices. They will use IT in different types of activities and explain that sometimes they will need to use IT in different ways.	To recognise that choices are made when using information technology • I can identify the choices that I make when using IT • I can use IT for different types of activities • I can explain the need to use IT in different ways

Subject knowledge

You will need to have a clear understanding of devices that can be described as information technology (IT). For younger learners, IT can be explained as being a computer or something that has been made to work with computers.
Examples could include:

- Computers: PCs, laptops, tablets
- Devices made to work with computers: scanners, barcode scanners, printers, smart speakers

You will also need to be aware that as technology continues to develop rapidly, some devices may fit in multiple categories. For example, a multifunction printer has a computer (processor) inside. It can work with a computer or independently.

You will need to know where technology can be found in shops and how it can be used. You should also know which devices can work together, for example:

- Barcode scanner, till
- Bank card, chip and PIN card reader, till
- Traffic light, crossing button, crossing signal

You can find some useful information and a short video about barcodes at www.waspbarcode.com/buzz/barcode.

This unit ties into key concepts from Education for a Connected World and you should be familiar with this document. You should also be familiar with your schools' online safety policy. You will need to be familiar with the Digital 5 a Day concept. More information on Digital 5 a Day can be found here: www.childrenscommissioner.gov.uk/our-work/digital/5-a-day.

Continuing Professional Development Opportunities

Enhance your subject knowledge to teach this unit through the following free CPD:

- **Getting Started in Year 2 – Short Course**
- **Introduction to Primary Computing - remote or face to face**

Teach primary computing certificate

To further enhance your subject knowledge, enrol on the teach primary computing certificate. This will support you to develop your knowledge and skills in primary computing and gain the confidence to teach great lessons, all whilst earning a nationally recognised certificate!

Progression

This unit progresses learners' understanding of technology and how they interact with it. They will develop this understanding to become familiar with the term information technology and will be able to identify common features of IT. This unit also builds on the learners' understanding of using technology safely and responsibly.

Common misconceptions

In this unit, pupils identify information technology as a computer or anything that works with a computer. They may not recognise some devices, such as phones and tablets, as being computers as they may have a narrow view of what a computer is. Alongside this, they may not see these devices as working with computers so may not classify them as IT. When images of tablets or phones are used within the unit, you may need to remind pupils that they are a type of computer.

Curriculum links

Computing
- Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
- Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Education for a Connected World links
Health, well-being, and lifestyle
- I can say how those rules / guides can help anyone accessing online technologies

Maths
- add and subtract numbers using concrete objects, pictorial representations, and mentally (Lesson 4)

Assessment

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
Please see the summative assessment document of multiple-choice questions for this unit.

Resources are updated regularly — the latest version is available at: ncce.io/tcc.