

Subject: Computing	Year: 2 – Autumn 1 – <b>Computer Systems &amp; Networks – IT around us.</b>
<p><b>National Curriculum objectives</b></p> <ul style="list-style-type: none"> <li>• Use technology purposefully to create, organise, store, manipulate, and retrieve digital content;</li> <li>• Recognise common uses of information technology beyond school;</li> <li>• Use technology safely and respectfully, keeping personal information private;</li> <li>• Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> </ul> <p><b>Health, well-being, and lifestyle</b></p> <ul style="list-style-type: none"> <li>• I can identify rules that help keep us safe and healthy in and beyond the home when using technology.</li> </ul>	
<p><b>To begin this unit, the children should have already learnt:</b>  This unit progresses learners' understanding of technology: how it can help us and how they can interact with it. Additionally, children will have learned parts of a computer and develop the basic skills needed to effectively use a computer keyboard and mouse. Finally, it builds on understanding of using technology safely and responsibly.</p>	<p><b>The learning in this unit will prepare the children to learn these things in the future:</b></p> <p><u>Year 3</u>  Digital devices are devices that are capable of processing and form part of a network, which is made of numerous devices. Information and data can be shared across networks.</p> <p><u>Year 4</u>  The internet is a network of networks which needs to be kept secure. and content can be created, accessed, added to and deleted.</p> <p><u>Year 5</u>  Information technology includes computers and other interconnected parts working together. Search engines are used to return information on the World Wide Web: these results are ranked based on the search engine's rules; the results from a search can also be influenced.</p> <p><u>Year 6</u>  Data is shared over the internet in packets. The internet facilitates online communication and collaboration: different methods are available – it is important to choose the best strategy for a purpose. Communication can be public or private so choices about what to share must be made.</p>
<p><b><u>Key Enquiry Question</u></b>  What is information technology and how is it used in school and the world around us to improve our lives? What are the different uses of IT and the rules necessary to use IT safely? What choices do you make when using IT?</p>	<p><b><u>The Big Idea:</u></b>  Information Technology is all around us and its responsible use improves our world in school and beyond.</p>

**To achieve ARE, pupils will need to be secure in the following knowledge:**

**By the end of this unit, children will know:**

- Different types of computers used in schools;
- That computers are a part of information technology;
- The features and uses of information technology;
- How information technology benefits us;
- How rules for using information technology helps us;
- How choices are made before and when using IT.

**Vocabulary:**

Technology; man-made; digital; screen; mouse; keyboard; program; click; drag; e-safety; cursor (Introduced in Y1).

**Information technology; device; barcode; scanner; communication; entertainment; appliances; signal.**

**By the end of this unit, children will be able to do:**

- To describe some uses of computers;
- To identify information technology in school;
- To identify information technology beyond school;
- To explain why we use information technology;
- To describe and explain how to use information safely.

**Useful Resources:**

**Online training courses**

[Raspberry Pi Foundation online training courses](#)

**Digital 5 a Day**

[www.childrenscommissioner.gov.uk/our-work/digital/5-a-day](http://www.childrenscommissioner.gov.uk/our-work/digital/5-a-day).

# COMPUTING SYSTEMS AND NETWORKS KNOWLEDGE ORGANISER

## Overview

### Technology Around Us



- Technology is something that has been made by people to help us.
- Technology is 'man-made' and not 'natural.' Examples include computers, phones, cars, bikes, and even pencils!
- Computers are a type of digital technology.
- Some of the different parts of a computer include the monitor, mouse and keyboard.
- There are a number of important rules to help us use computers safely.

## Technology

- Technology is the name for man-made things that help us.
- Technology is all around us, and helps to make our lives easier.



-Digital technology is the name for electronic items that create and store information, e.g. computers, mobile phones, and televisions.



-Non-digital technology is the name for non-electronic items that do not create and store information.



## Using Technology Safely

- When using technology, we should:
- Hold the device carefully and use it gently.
  - Not have food and drink around the device.
  - Only use the programs that we are supposed to be using.
  - Take turns with our partner, and stop using the device when we are being spoken to.



## Computers



- Desktop computers need to be placed on a surface, e.g. a table or desk. Laptop computers are portable – they can be moved to different places.
- The screen (or monitor) displays what the computer is doing.
- The mouse lets you select and move objects (some computers have a trackpad instead).
- The keyboard lets you type letters and numbers.
- Computers can run different programs. Programs do different tasks on the computer. E.g. Microsoft Word, Microsoft PowerPoint and Paint.
- When we are using a program, we can save our work by pressing Ctrl + S or by clicking on this icon.



## Using a Mouse



- The mouse can be used to click and drag.
- Clicking the left button lets us select something. Clicking twice quickly lets us open files and programs.
- Clicking the right button gives us options.
- Holding the left button down allows us to drag things.



## Using a Keyboard



- Writing on a computer is called typing. We do this on a keyboard.
- Holding the shift key, or pressing caps lock, helps us to type a capital letter.
- Delete and backspace buttons can help us to remove typing.

## Important Vocabulary

Technology      Man-made      Digital      Screen      Mouse      Keyboard      Program      Click/ Drag      Cursor      E-Safety