Holly Park School Year 5

Computing Learning Organiser

Information Technology (IT) Systems and Searching

Prior Knowledge

I can describe the internet as a network of networks and demonstrate how information is shared across the internet
I can explain how the internet allows us to view the World Wide Web.
I know that computers collect data from various input devices, including sensors and application software

NC Learning Objectives

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

What will I know by the end of this unit?

I can describe that a computer system features inputs, processes, and outputs and explain that computer systems communicate with other devices
I recognise that data is transferred over the internet and that networked digital devices have unique addresses
(Barefoot computing – Y5: 'Network Hunt' & 'Modelling the Internet')
I recognise that connected digital devices can allow us to access shared files stored online and that the internet allows different media to be shared
I know what are the benefits of working together in a shared project online
I can identify different ways of working together online and explain how the internet enables effective collaboration

Scheme of Lessons

In this unit, learners will develop their understanding of computer systems and how information is transferred between systems and devices. Learners will consider small-scale systems as well as large-scale systems. They will explain the input, output, and process aspects of a variety of different real-world systems. Learners will also take part in a collaborative online project with other class members and develop their skills in working together online.

1) Systems- Learners are introduced to the concept of a system.
2) Computer Systems and us- Learners consider how larger computer systems work.
3) Searching the web- Learners are introduced to a range of search engines.
4) Selecting search engines- Learners gain an understanding of why search engines are necessary to help them find things on the World Wide Web.
5) How search results are ranked- Learners take part in an unplugged activity to find out about how a webpage's content can influence where it is ranked in search results.
6)How are searches influenced?- Learners explore how someone performing a web search can influence the results that are returned, and how content creators can optimise their sites for searching.

Vocabulary

System – a group of related hardware units or programs or both, especially when dedicated to a single application.
Input- what is put in, taken in, or operated on by any process or system.
Output – the amount of something produced by a person, machine, or industry.
Process – an instance of a program being executed in a multitasking operating system
Protocol – a set of rules governing the exchange or transmission of data between devices.
IP Address- a unique string of characters that identifies each computer using the Internet Protocol to communicate over a network.
Pocket- Information that computers send
Collaboration- the action of working with someone to produce something.
Search engine- computer software used to search data (as text or a database) for specific information.
Web crawler- an automated program that automatically browses the web and stores information about the webpages it visits.

Relevant Digital Literacy NC links:

CONDUCT and CONTACT - I understand what opportunities and dangers computer networks offer for communication and collaboration

CONDUCT and CONTENT - To explain how to be discerning in evaluating digital content. Identify a range of ways to report concerns about content and contact

Evidence and assessment

Unplugged work from lesson plans to be presented in project books/ floor books
There is an opportunity for formative assessment in every lesson and also a summative assessment in form of MCQ in lesson plan folder.