Digital Literacy

Definition:

To be digitally literate is to be able to **engage the connections and communications possibilities of digital technologies**, in their capacity **to generate, remix, repurpose, and share new knowledge** as well as simply deliver existing information.

Core Open Resource:
Common Sense Media

	Key Stage 1
	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.

	Year 1	Year 2
Online Safety	To compare how staying safe online is similar to staying safe in the real world. To explain rules for traveling safely on the internet. To learn why it's important to be aware and respectful of people while using devices To learn the Pause, Breathe, Finish Up routine as a self-regulation strategy for transitioning from technology to face-to-face interactions To know when and why to take breaks from device time. To consider the feelings of people around them, even when engaged in fun online activities. To know strategies if something inappropriate is seen on a website and/or digital device To understand that passwords should be kept private	To recognize the different kinds of feelings they can have when using technology. To know what to do when they don't have a good feeling when using technology. To understand the importance of being safe, responsible, and respectful online. To learn the "Pause & Think Online" song to remember basic digital citizenship concepts. To understand that being safe online is similar to staying safe in real life. To learn to identify websites and apps that are "just right" and "not right" for them. To know how to get help from an adult if they are unsure about a website. To know about the risks of advertising or pop-up windows To can keep passwords secret
Online Literacy	To discover that the internet can be used to visit faraway places and learn new things. To access a website and navigate around it To begin to evaluate web sites by giving opinions To publish work online	To use a search engine to find information using agreed key words To navigate to a website by entering a simple web address
Copyright	To own work by adding name and date To respect the work of others stored on a shared drive (online)	
Quality of Information	To know that online communication is not always true	To understand that some information online may be untrue
	Informed by Islington Skills Booklet	*Informed by Islington Skills Booklet*

Information Technology

National Curriculum	KS1
	☐ Use technology purposefully to create, organise, store, manipulate and retrieve digital content
	☐ Recognise common uses of information technology beyond school

		Year 1	Year 2
Creating, Organising, Storing, and Retrieving		To use a keyboard effectively	To word process short pieces of text including the use of formatting tools
		To use a word bank for help and use online spelling tools	To save, print, retrieve and edit my work
		To begin to explain reasons choices to a teacher or talk partner	To find my work to open or print it
		To save work to the appropriate location	To use and add to a branching database to find objects using Yes/No questions
		To begin to retrieve work	CONSIDER INCLUDING:
		To print work and pictures	To use a mouse in different ways
		To understand that technology can help to create and edit a range of document styles	
		CONSIDER INCLUDING:	
		To switch on a computer & log in successfully	
		More detail needed for word processing	
		E.g. create a new document & include text	
Creating & Manipulating	Digital Images: Drawing, Photo & Video	To create/edit an image using a range of 'tools' both on and offline	I can create/edit an image using a range of 'tools' both on and offline including 'undo' and 'redo'
		To add text to photographs and pictures	
		CONSIDER INCLUDING:	CONSIDER PROGRESSION FOR:
		Taking digital photos and recording video	Drawing images, digital photos and video
	Digital Audio	To create audio using digital instruments and recordings	CONSIDER PROGRESSION
	Data	To make a pictogram and understand what it shows	I can add information to a table and use this to create graphs/bar charts
			I can use a data logger and sensors with support
	Technology	To recognise how technology is used at home and at school	CONSIDER PROGRESSION
		To identify a computer and its main parts	
		To create rules for using technology responsibly	
		Informed by Islington Skills Booklets	*Informed by Islington Skills Booklets for detail*

Computer Science

Key Stage 1

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs

Definition:

Computer science & computational thinking allows us to develop skills and techniques to help us solve problems effectively, **with** or **without** the aid of a computer.
Computational thinking is *not thinking like a computer* – computers are not capable of thought. Rather, *it is learning to think in ways which allow us, as humans, to solve problems more effectively* and, when appropriate, use computers to help us do so.

Core Open Resource:
Barefoot Computing

Year 1	Year 2
To physically follow instructions and give others instructions to move around	To physically follow instructions including turns (right angle)
To predict outcomes from sequences	To create an algorithm for a specific purpose
To begin to identify an algorithm to achieve a specific purpose	To sequence and program a digital device specifying distance and turns, and drawing a trail
To create an algorithm to execute a program on digital devices	To predict what will happen and test results
To begin to predict what will happen for a short sequence of instructions in a program	To use software to create movement and patterns on a screen
To begin to use software to create movement and patterns on a screen	To talk about similarities and differences between physical devices and onscreen robots
To use computer science vocabulary accurately	To use the word debug to correct any mistakes and explain what I have done
To create a series or sequence of precise instructions (program)	To experience a range of control devices such as a microscope, sound recorders, cameras and other devices
To identify mistakes (bug)	To use the repeat command when programming a digital device
To modify my instructions (debug)	To use the repeat block to control an on-screen sprite
To record a sequence of instructions in a common format	To enter instructions using the mouse and the keyboard
To identify electronic machines and begin to realise there is a program behind every control on a machine	

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Computational Thinking

- Abstraction
- Logical Thinking
- Algorithmic Thinking
- Pattern Identification
- Decomposition
- Evaluation

Computational Thinking = Critical thinking + Power of computing

Approaches

Use Modify Create	FAQ	Support Cards	Limited Blocks

Continuum of Scaffolding

Copying Code	Targeted Tasks	Shared Programming	Guided Exploration	Projects	Tinkering

Process of Development

Use computational thinking to:
- Analyse the problem
- Design a solution
- Creating an algorithm

+

Implement as Code:
Transfer ideas to a programming language on a computer

=

Programming

PRIMM:
- **P**redict
- **R**un
- **I**nvestigate
- **M**odify
- **M**ake

Levels of Abstraction:
- Task
- Design (including algorithms)
- Code
- Running the Code

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