



Aiming High, Achieving Together

Progression of Skills & Knowledge: Computing

Declarative knowledge

Static facts or knowledge stored in your memory (what)

Procedural knowledge

How to perform a specific skill or task (how)

Conditional Knowledge

When to use declarative and procedural knowledge (when & why)

Areas of Learning	Pre-School	YR	Y1	Y2	Y3
Information Technology NC Aims: Pupils should be taught to: - use technology purposefully to create, organise, store, manipulate and retrieve digital content - recognise common uses of information technology beyond school	Technology was removed from Development Matters Revised September 2023 Listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our technologically diverse world Explore technology devices e.g. phones, tape recorders, cameras, toys with knobs or pulleys Recognise things which use technology in the setting	Can use a digital device to draw pictures Can use a digital device to take photos Can use a digital device to record sounds Can use a digital device to record videos Know that information technology is used inside and outside school Can identify where some information technology is used in my house Detailed Drawing Knowledge Can use a pen or brush tool to draw with the mouse or trackpad Can change the colour of my pen or paint brush Can use a digital rubber to remove markings Detailed Pointing Device Knowledge Can move the cursor to the right place on the screen	Can use a keyboard to input letters, numbers and symbols Can use a digital device to word process text Can save my digital creations by naming them after what they are about Can identify where some information technology is used in my community Detailed Word Processing Knowledge Can highlight a line of text by left clicking on left of line Can highlight a single word by double left clicking on it Can change text size for titles or headings Can change text font using no more than two fonts in any document one for headings one for main body Can change text to bold for titles, headings or emphasis Can change text colour for emphasis Can use bullet points for lists where the order is not important Can use numbered points	Know I can create lots of different types of things on digital devices Can use a pointing device to select and change items on a digital device Can use a digital device to present my ideas Can use a digital device to change photos Can find my saved documents and open them Detailed Word Processing Knowledge Can highlight by left clicking and holding down whilst dragging over text Can change text font using no more than two fonts in any document one for headings one for main body Can change text colour for emphasis Can align text left and use this for most documents Can align text right for emphasis or to line text up with other elements Detailed Presentation Knowledge Can create a new slide	Can create a folder and name it after what it will store Can highlight text for document review only Can change text to italics for emphasis or quotes Continue to practise typing with 2 hands Can use 'Undo' to remove changes Can explain the difference between text and images Can identify the advantages and disadvantages of using text and images Can recognise that text and images can communicate messages clearly Can change font style, size, and colours for a given purpose Can edit text Can create a template for a particular purpose Can define the term 'page orientation'

		using mouse or trackpad lifting mouse if necessary	for lists where the order is important Can align text left and use this for most documents Can align text in the centre for titles Detailed Presentation Knowledge Can create a new slide Can add text to a new slide whilst keeping text to a minimum to avoid overload Can import a graphic into a slide that is appropriate for the topic Detailed Keyboard Knowledge Can use the space key to insert gaps between words Can recognise some keys on a keyboard Can use the delete key to delete right Can use backspace to delete left Detailed Pointing Device Knowledge Know where right and left buttons are on my trackpad (if using laptops) Can hold the mouse still while clicking buttons Can single left click to open links on a browser Can double left click to open software Detailed Saving Knowledge	Can choose an appropriate format for a new slide that matches the information I need to share, text only, text and graphics Can change between building and presenting modes and know when both should be used Detailed Keyboard Knowledge Can find common letters on a QWERTY keyboard Can use return or enter to move text onto a new line Can use arrow keys to move the cursor around within text to aid accuracy in highlighting and deleting Can use shift for capitals lowercase text avoiding caps locks unless lots of text needs to be in capitals Can use shift for other symbols available on the top of the key or to switch between upper and lower case Detailed Pointing Device Knowledge Can left click and hold to highlight text Can double left click to highlight one word Detailed Saving Knowledge Can open a saved document outside a program	
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			Can open a saved document within a program	Can save a document into a previously created folder	
Computer Science NC aims: -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		Know that digital devices can come in many shapes and sizes Can make simple toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. Can complete a simple program using Beebots	Know that an algorithm is a set of precise instructions that can be understood by another human Know that a digital device contains coded instructions to make it do things Know that computers are one form of digital device Know that an algorithm can be used to plan a program on a digital device called a code Can plan an algorithm that can be turned into code on a digital device Can debug code that does not do what I want it to do	Can look at code to work out what a program will do when the code is run Can write code that makes an object move around the screen when keys are pressed Can program buttons to make objects move Can write code that makes objects change direction Can write code where different inputs can be used to make objects move and disappear Can write code where buttons can be used to move an object around the screen	Can write a computer program where code executes in a particular sequence Can create a program that uses sequences for two different objects moving on the screen Can write code that uses a timer to create a sequence of events Can use conditional statements within code (If...) to control movement Can use conditional 'hit' events to check if one object has hit another Can program a simple game where conditional events are used to check whether objects have collided
Digital Literacy & on-line Safety NC aims: - use technology safely and respectfully, keeping personal information private; identify where to go for		Know that need to be safe when using technology	Know that some things online are written for adults, not me. Know I should tell a trusted adult if I see things online that make me feel sad, upset or confused	Know that some information is private (only for me and trusted people) and some information is public (available for everyone) Can identify personal information about me such as my name, age, birthday, where I live and go to school	Know I can use online technologies to find information (web browser, Smart devices like Alexa or Siri) Know I will come across things online that I like and things I don't like Can decide who is trustworthy based on their relationship to me or their jobs

help and support when they have concerns about content or contact on the internet or other online technologies				Know I should only share personal information after checking it first with a trustworthy person.	
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