

## Morecambe Bay Community Primary School Schools Knowledge and Skills Progression 20/21

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INFORMATION TECHNOLOGY	Yr 1 /Yr2	Yr 3/4	Yr 5/6	
<b>INTRODUCE KEY VOCABULARY IN THE LESSON</b>				
<b>EARLY YEARS</b>	Text and multimedia (TM)	Use the keyboard to add, edit, delete and space text for others to read. Change the appearance of text.	Use the keyboard confidently and make use of a spellchecker.	Use appropriate keyboard commands to amend text on my device, shortcut keys. Use tabs, formatting, line spacing.
		With support save/ retrieve and discuss how to improve/ edit work.	Independently save/ retrieve, edit and evaluate my work. Use an appropriate tool to share my work.	Independently create, modify and present documents for a particular purpose. Discuss audience, atmosphere and structure when planning a particular outcome. E.g. a year book
	Digital images (DI)	Take pictures using a camera. With support create a digital class resource including text and an image. Discuss how to resize/ edit and modify a picture.	Independently record and present information combining text and graphics / sound/ video. Focusing on intending audience	Independently, use images that they have manipulated in a project (presentation/ film) explaining why their project is good for an audience.
	Sound and music (SM)	With support record short speech or create music	Create a simple podcast/ music track/ recording. With support edit the sound/ music and work in a team to present	Independently create a sound/ recording for a purpose for an audience. Create a short advert using video technology
	Modelling and simulations (spreadsheets) Handling information (databases and graphs)	With support create a graph (e.g. pictogram) or a table from a topic (how many red cars are on the street?)	Use a spreadsheet to store data and produce graphs With support understand, search and sorting data and simple formulae. Start to understand the ethical issues with handling data.	Independently solve a problem by planning and carrying data collection. Independently sort, search data and insert formulae into spreadsheets. Discuss data privacy.
	Data logging	Only do in KS2	Begin to use a data logger (link to science and maths). Interpret the results and understand the advantages	Independently use data loggers. Check and question results and identify trends and problems

	DIGITAL LITERACY	Yr 1 /Yr2	Yr 3/4	Yr 5/6
<b>YOU DO NOT NEED COMPUTERS FOR EVERY LESSON USE PAPER RESOURCES</b>				
	Electronic communication	Discuss why we use email. Contribute to a class email to send to another class	Independently design and create an email. Understand netiquette/language used in an email	Independently create an email for a purpose. Discuss Language used in the email (syntax, cc, bcc)
		Introduce children safe websites (e.g. Kid Rex)	With support search the internet using child safe websites. Understand that there are different search engines and might give different results	Searching the internet to find specific information using key words/ symbols. Question the reliability of digital content. Understand that information, including that from search engines, is ranked, selected and targeted.
	E-safety Discuss using technology safely and responsibly. Recognise acceptable and unacceptable behaviour	<b>PSHE:</b> With support discuss the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them. With support discuss about the benefits and risks of online time and talking online to strangers. With support understand the importance of passwords	<b>PSHE:</b> Discuss online time mental and physical well being. (bullying/ trollying/online abuse)including social media. Discuss the effects of online actions and the importance of keeping personal information private. Identify a range of ways to report concerns. Develop the need to abide school e-safety rules. Discuss Computer games (Age restrictions/ social media/ time/ making choices online)	<b>PSHE:</b> Explain why social media, computer games and online gaming, for example, are age restricted. Explain where and how to report concerns and get support with issues online including the issues of social media Independently create and develop e-safety school policy.
	The Internet/ Network Understanding technology	With support start to understand the importance of sharing information on a network.	Independently explain how information is shared on a network. Navigation of websites with support manage them (back, forward, hyperlinks) .Understand the school network and how it links to each other.	Independently understand computer networks such as the internet and the services they provide

COMPUTER SCIENCE		Yr 1 /Yr2	Yr 3/4	Yr 5/6
<b>PLAN ON PAPER FIRST USING STORY BOARDS/ FLOW CHARTS/ DRAWINGS/ SKETCHES. INTRODUCE KEY VOCABULARY</b>				
EA RL Y YE AR S	Programming	With support, plan a series of instructions to create a program. For example giving instructions to another child (using forward, backward and turn) and physically follow their instructions.	Independently plan a series of instructions to create a program which accomplish specific goals using a sequence.	Independently create a sequence of commands to control devices responding to an input that create outputs. Refine a procedure(program) using repeat commands to improve a program.
		Explain the order I need to do things (sequence) to make something happen and talk about this as an algorithm. (e.g. making a sandwich)	Independently use sequence, selection and repetition in programs	Decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.
		With support debug (fix) simple programs to fix them to solve a problem	Independently debug (fix) problems in a program and decomposing it into smaller parts	Use logical reasoning to detect and debug mistakes in a program. Evaluate the effectiveness and efficiency of my algorithm Continually test the program. Use a variable to increase programming possibilities.
	Control algorithms	Control simple devices to produce different outcomes. Control a device on and off screen making prediction	To understand different forms of input (scanner) and output (printer) such as sensors, lights, motors and speakers.	To understand different forms of input (scanner) and output (printer) such as sensors, lights, motors and speakers and how they communicate