Computing Key Concepts Map

High Ercall Primary School

High Expectations, High Ercall

Substantive Concepts	Information Technology Information Technology is the application of skills. Pupils are equipped to use information technology to create programs, systems and a range of content.			Digital Literacy Digital Literacy ensures that pupils can use, and express themselves and develop their ideas through, information and communication technology, ready for the future workplace.	Computer Science Computer Science, the core of computing, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.
Disciplinary Concepts	Computer Navigation	Creating Media	Data and Information	Computing Systems and Networks	Programming
C1	Year A & B • Computer Skills	Year A • Digital Painting Year B • Digital Writing	Year B • Grouping Data	Year A • Technology Around us	Year A • Moving a robot • Introduction to Animation Year B • Programming Toys • Programming with Scratch Jr
C2	Year A & B • Presentation Skills	Year A • Digital Photography Year B • Digital Music • Using the internet	Year B • Pictograms	Year A • IT Around Us	Year A • Robot Algorithms • An Introduction to Quizzes Year B • Turtle Logo and Scratch

C3	Year A & B	Year A	Year B	Year A	Year A
	• Word Processing skills	• Photo Editing • Desktop Publishing **Year B** • Stop Frame Animation	• Branching Databases	• Connecting Computers	• Sequence in Music **Year B** • Events and Actions • Repetition in Shapes
C4	Year A & B	Year A	Year A	Year A	Year A
	• PowerPoint	• Audio Editing **Year B** • Vector Drawing	• Data Logging **Year B** • Flat-file Databases	• Sharing Information	• Selection in Physical Computing **Year B** • Repetition in Games • Programming Turtle Logo
C5	Year A & B	Year A	Year B	Year A	Year A
	• Publisher	• 3D Modelling • Video Production **Year B** • Web Page Creation	• Spreadsheet	• Communication and Collaboration	• Variables in Games **Year B** • Scratch Animated Stories • Sensing movement

E-Safety Key Concepts Map

High Ercall Primary School
High Expectations, High Ercall

Substantive Concepts	Digital Literacy Digital Literacy ensures that pupils can use, and express themselves and develop their ideas through, information and communication technology, ready for the future workplace.					
Disciplinary concepts	**Privacy & Security**	**Online Relationship**	**Managing Online Information**	**Online Reputation**	**Self-Image and Identity**	**Health, Wellbeing and Lifestyle**
C1	**Year A** • I can recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names) **Year B** • I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).	**Year A** • I can give examples of how I (might) use technology to communicate with people I know. **Year B** • I can use the internet with adult support to communicate with people I know (e.g. video call apps or services).	**Year A** • I can identify devices I could use to access information on the internet. **Year B** • I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching.	**Year A** • I can recognise that information can stay online and could be copied. **Year B** • I can identify ways that I can put information on the internet.	**Year A** • I can recognise that there may be people online who could make someone feel sad, embarrassed or upset. **Year B** • I can recognise, online or offline, that anyone can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset.	**Year A** • I can identify rules that help keep us safe and healthy in and beyond the home when using technology. **Year B** • I can give some simple examples of these rules.
C2	**Year A** • I can explain how passwords are used to protect information,	**Year A** • I can explain why it is important to be considerate and kind to people online and	**Year A** • I know how to get help from a trusted adult if we see content that makes	**Year A** • I can explain how information put online about	**Year A** • I can explain how other people may look and act	**Year A** • I can explain simple guidance for using technology in different

	accounts and devices. **Year B** • I can explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).	to respect their choices. **Year B** • I can explain why I have a right to say 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do.	us feel sad, uncomfortable, worried or frightened. **Year B** • I can explain what voice activated searching is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri).	someone can last for a long time. **Year B** • I can describe what information I should not put online without asking a trusted adult first.	differently online and offline. **Year B** • If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.	environments and settings e.g. accessing online technologies in public places and the home environment **Year B** • I can explain rules to keep myself safe when using technology both in and beyond the home.
C3	**Year A** • I can describe simple strategies for creating and keeping passwords private. **Year B** • I can explain that internet use is never fully private and is monitored, e.g. adult supervision	**Year A** • I can explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with. **Year B** • I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms)	**Year A** • I can demonstrate how to use key phrases in search engines to gather accurate information online. **Year B** • I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.	**Year A** I can describe how to find out information about others by searching online. **Year B** • I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal.	**Year A** • I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. **Year B** • I can explain how people can represent themselves in different ways online.	**Year A** • I can explain how using technology can be a distraction from other things, in both a positive and negative way **Year B** • I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted

						gaming or web sites).
C4	**Year A** • I know what the digital age of consent is and the impact this has on online services asking for consent. **Year B** • I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others	**Year A** • I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. **Year B** • I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault.	**Year A** • I can explain that technology can be designed to act like or impersonate living things (e.g. bots) and describe what the benefits and the risks might be. **Year B** • I can describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful.	**Year A** I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect. **Year B** • I can explain ways that some of the information about anyone online could have been created, copied or shared by others.	**Year A** I can demonstrate how to make responsible choices about having an online identity, depending on context. **Year B** • I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this.	**Year A** • I can explain how and why some apps and games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing. **Year B** • I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time.
C5	**Year A** • I can describe effective ways people can manage passwords (e.g. storing them securely or	**Year A** • I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is	**Year A** • I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those	**Year A** I can explain the ways in which anyone can develop a positive online reputation. **Year B**	**Year A** • I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and	**Year A** • I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and

	saving them in the browser).	shared about them online and how to support them if others do not.	promoting it does not necessarily make it true, fair or perhaps even legal.	I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.	explain why it is important to challenge and reject inappropriate representations online.	describe their purpose.
	Year B • I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing).	**Year B** • I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.	**Year B** • I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for fake news).		**Year B** • I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline.	**Year B** • I can assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise).