Year 6 Computing Subject Map

DRIVER WORDS

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Describe, Perform, Record, Explore, Create, Identify	Sequence instructions, Control devices, Classify, Represent data, Retrieve, Recognise e-safety issues	Plan, Construct, Record, Save, Retrieve, Use different kinds of data, Understand protection of personal information	Create algorithms, Explain, Modify, Search, Publish, Communicate, Understand password security	Apply, Understand input and output, Programme, Create Sequences, Evaluate, Select appropriate software, Understand the risks and benefits of the internet	Design, Create, Test, Refine, Improve, Be selective, Critically evaluate, Understand how to deal with cyber bullying effectively	Debug, Solve problems, Work with variables, Use logical reasoning, Detect and correct errors, Plan, Design, Combine software, Use technology safely

AGE RELATED EXPECTATIONS

	COMPUTER SCIENCE		INFORMATION TECHNOLOGY		DIGITAL LITERACY/INTERNET SAEFTY
Algorithms, problem solving and reasoning	1. Design, write and debug a program using a second programming language based on their own ideas (using loops, sprites that move in a variety of ways, allowing them to disappear and appear randomly, manipulate variables and use operators that determine an outcome of a conditional statement). 2. Use sequence, selection, repetition and variables in programs. 3. Write a program that accepts inputs other than keyboard and mouse and produces outputs other than screen or speakers. 4. Design, write and debug their own computer control application. 5. Solve problems using decomposition, tackling each part separately. 6. Understand that coding is the use of programming languages to make games, programs and computers things. 7. Write and adapt programmes using Scratch and Purple Mash Coding (print command, run button, input command, random command).	*Digital Productivity, Creating Content*	13. Select, use and combine a range of programs on multiple devices. 14. Design and create systems in response to a given goal. 15. Analyse and evaluate data using their chosen software and graphs.	*Safe Use*	17. Show that they can think through the consequences of their actions when using digital technology. 18. Identify principles underpinning acceptable use of digital technologies. 19. Know a range of ways to report concerns and inappropriate behaviour in a variety of contexts.
Logical Reasoning	8. Give clear and precise logical explanations of a number of algorithms. 9. Use logical reasoning to detect and correct errors in algorithms (and programs).	*Searching*	16. Make use of a range of search engines appropriate to finding information that is required.	*Uses beyond school*	
Networks and Search engines	10. Understand how mobile phone or other networks operate. 11. Understand how domain names are converted into IP addresses on the internet. 12. Appreciate that search engines rank pages based on the number and quality of in-bound links.			*Digital Creativity*	20. Use online tools to plan and carry out a collaborative project successfully. 21. Articulate an opinion about the effectiveness of digital content.

COMPUTING VOCABULARY

Algorithm, block, language, command , control, collaboration, debug, decomposition, encrypted, execute, hardware, HTTP, input, IP address, loops, manipulate, organise, repetition, scripted, selection, sequence, simulation, sprite, software, store, packets of data, physical system ,retrieve, reverse, engineer ,URL, variables , acceptable/unacceptable behaviours , detect, encryption, evaluating, content, personal information, private, responsibility, world wide web app/application, command, computer, data, device, digital, download, home button, input, internet,