



Computing

Year 9

GFS Assessment Level	Assessment Criteria				
	Modelling	Programming (text based programming language)	Computer Systems	Analysis	E-Safety(Focus – Creator’s Responsibility and Safe Online talk)
M2	Create an accurate, detailed model for a complex problem.	Create my own relational databases and am able to use them in my programs. Make sure that the programs I develop have been written so they are unlikely to crash or cause errors.	Plan a range of internet services (e.g. VOIP) required for a given scenario.	Assess the validity of my program by considering or comparing alternative solutions.	Recognises what is acceptable and unacceptable behaviour when using online chatrooms and online messaging. Create a list of Do’s and Don’ts.
M1	Recognise similarities in more complex problems required by combining a set of functions.	Find, explain and use techniques for specific tasks. Analyse real world problems and develop low-level and high-level plans for a solution.	Construct a set of steps to show data transmission between digital computers over networks, including the internet i.e. IP addresses and packet switching.	Describe and predict the outcomes of more complex algorithms for example searching and sorting.	Demonstrates use of computers safely and responsibly by avoiding plagiarism and piracy, knowing a range of ways to report unacceptable content and contact when online
S3	Recognise similarities in more complex problems.	Independently write the program for others to use and apply advanced debugging procedures.	Compare the features of LAN, WAN and WLAN.	Analyse a problem and divide it into all its sub-problems and show this as a diagram.	Understand the importance of communicating safely and respectfully in online chatrooms and messaging websites. Know that

					information should be kept private.
S2	Produce a model which fits some aspects of these problems	Write programs in a text based language and I can debug statements. Create my own data structure. Use pre-constructed modules of code to build a system. Select and use programming tools suited to my work in a variety of contexts, translating specifications expressed in an ordinary language into a language required by the system.	Compare the features of the Internet and World Wide Web.	Take a problem and divide it into a main sub-problem. Analyse and present an algorithm for a given task.	Know how to identify and report inappropriate conduct when chatting online.
S1	Modify solutions to one problem and adapt them for similar problems. Recognise similarities in given problems. Produce a model which fits some aspects of these problems.	Use procedures, functions with parameters in my programs. Explain and write more complex algorithms e.g. searching and sorting algorithms. Create program interfaces to make predictions and vary the rules within the programs. Independently write or debug a short program.	Create a simple webpage using HTML.	Demonstrate the need for care and precision of syntax and typography in giving instructions.	Use digital devices and the internet safely and responsibly in all projects by avoiding plagiarism.
D2	Recognise similarities between simple problems and the ways in which they can be solved.	Use variables, lists and simple procedures correctly in my programs. Explore the effects of changing the variables in a model or program.	Explain the differences between circuit and packet switching.	Describe what is meant by a computational table. Think through an algorithm and predict an output	Identify the risks of working online. Identify ways of how to keep my personal details safe in online chatrooms and messaging sites.

		Develop, try out and refine sequence of instructions and show efficiency in framing these instructions. Make use of procedures without parameters in my programs. Manipulate strings and select appropriate data types.			
D1	Trace instructions using variables, selection and repetition and predict what the result will be. Think through an algorithm and predict its output.	Use selection and repetition correctly in my programs. Give instructions involving selections and repetitions. Analyse and represent symbolically a sequence of events.	Explain why people use computer networks.	Describe the goals of a given problem. Test my work and suggest how I can improve it.	Identify some of the risks of chatting and messaging online. Identify some of the ways of how to keep my personal details safe.
E2	Read a sequence of instructions and predict what the result will be. Develop and improve my instructions.	Plan a sequence of instructions for something I want to happen. Produce a linear sequence of instructions to make things happen. Identify algorithms and its purpose.	Recognise various types of hardware associated with networking computer systems (e.g. hubs, routers, switches and protocols)	Perform some testing on my work.	State some of the risks of working online. State some of the ways of how to keep my personal details safe when chatting online
E1	Read a sequence of instructions and have some success at predicting what the result will be. Identify some areas that can be improved in my instruction	Plan a simple sequence of instructions for something I want to happen. Produce a simple linear sequence of instructions to make things happen. Identify algorithms.	Define the terms - network, packet and internet.	Describe some of the goals of a given problem.	State a risk of working online. State a way of how to keep my personal details safe when chatting and messaging online. State a fact that the human element contributes to the risks of

					using computers. Realise that there is a benefit of accessing technology.
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