

Computing Science		Identify	Imitate	Adapt	Create	Explain
1	I can design an algorithm for a specific purpose	I can identify that programs on digital devices start as algorithms	I can examine an algorithm and answer questions about its steps, parts and purpose	I can complete an unfinished algorithm or adapt an algorithm to solve a similar problem	I can design an algorithm that accomplishes a specific goal	I can explain the steps or parts of my algorithm
2	I can turn an algorithm into a working program	I can identify that writing a program is turning an algorithm into code	I can follow instruction to build a program	I can complete an unfinished program or adapt a program to solve a similar problem	I can write a program by converting an algorithm into code	I can document my program listing parts of the algorithm that were difficult to convert, alternate solutions and why the final one was chosen
3	I can debug code and fix algorithms using a range of techniques	I can identify that, all programs will have bugs in them, bugs are normal in programming. It may take time to find and fix my bug, I am responsible for debugging my own code	I can recall common bug types mentioned by my teacher or peers and identify where they might occur in my code	I can debug code with a programming partner. I can find a bug once my teacher or a peer has given me a hint or starting place	I can debug my code or create a bug independently	I can explain how I debugged my code, what strategies I used and what I learnt from the process
4	I can solve problems by decomposing them into parts	I can identify that some algorithms and programming projects can be decomposed (broken up into parts)	I can examine a decomposed programming project or decomposed algorithm and explain the breakdown of tasks	I can finish decomposing a partially completed problem or suggest better ways to decompose a project	I can decompose my problem into separate sections that can be solved separately	I can explain how decomposition helps me tackle complex problems by breaking up the task into manageable chunks and helping order work-flow
5	I can use sequence in algorithms or code	I can identify that a sequence is one event following another	I can follow the steps of a code sequence	I can complete an unfinished code sequence. I can reverse a code sequence and explain the differences	I can convert an algorithm sequence into a code sequence. I can create a code sequence for a purpose	I can explain what is happening in my code sequence
6	I can use repetition in algorithms or code	I can identify that repetition is about repeating parts of the code or algorithm	I can follow everyday repetition examples. I can read repetition code	I can create an everyday repetition example. I can adapt or reverse an example of repetition	I can create algorithm or code that uses repetition for a real purpose	I can explain what purpose repetition fulfils in my algorithm or program
7	I can use selection in algorithms or code	I can identify that selection is about responding to a condition	I can follow an everyday selection example or read selection code	I can create an everyday selection example or adapt/reverse a selection example	I can create algorithm or code that uses conditional selection for a real purpose	I can explain what purpose conditional selection fulfils in my algorithm or program
8	I can use variables in algorithm or code	I can identify that variables are about storing, referring to and changing key data within a program	I can read code with simple variables in it	I can adapt a given variable example	I can create algorithm or code that uses variables for real purposes	I can explain what purpose variable fulfils in my algorithm or code
9	I can use logical reasoning to explain how algorithms or code work	I can identify that algorithms follow logical rules expressed in steps, decisions, loops and variables	I can read algorithm or code and answer simple questions about the purpose of a part	I can read algorithm or code and make logical predictions about what will happen if a part is changed	I can read algorithm or code and explain how every part of it works	I can read algorithms and code and explain how every part of it works using correct programming terms

Information Technology		Identify	Explore	Explain
10	I understand computer networks and how the Internet is a network of networks	I can identify that a network is a group of connected people or things and that the Internet is a network of networks that many home and school devices are connected to.	I can explore basic network functions, shared security, work collaboration, communication, storage, printing services etc. I can explore the nature of the internet as a data transport network which carries lots of different services such as the world wide web.	I can explain in non-technical language how a school or small network works, how the internet connects computers around the world and how multiple services like the world wide web use the internet
11	I appreciate how results are selected and ranked	I can identify that I am searching a database of websites not the actual website when I use a search engine and that the top results in a returned search doesn't mean it is the most truthful.	I can explore how search results are created and ranked through simplified models	I can explain how search results are selected and ranked
Digital Literacy		Identify	Explore	Explain
12	I can use search technologies effectively	I can identify that the order I add search words affects what results are returned and that there are symbols and key-words that I can use to adapt a search and make it more effective	I can use symbols such as speech marks, tilde ~, colon:, * asterisk subtract - to refine my search results. I can use <b>AND</b> and <b>OR</b> Boolean terms in a search engine effectively	I can explain how either changing the order of my search words, using a symbol or using a Boolean operator improved my search efficiency
13	I can select the right digital tool for the job	I can identify that some digital tools will be better than others depending on the purpose and intended outcome	I can select the right digital tool that matches the purpose and intended outcome. I can choose to use a non-digital tool when it better matches my task and outcome	I can explain why the tool I have chosen is right for my project and intended outcome
14	I can combine digital tools, services or devices when needed	I can identify that some tasks will require more than one digital tool, service or device	I can combine digital tools and services to create a project for a specific goal	I can explain how I combined digital tools or services to create a project for a specific goal. I can explain how the use of more than one type of tool or service improved the project outcomes.
15	I can collect data	I can identify that data can be collected using many different types of digital tool	I can use and design digital systems to collect data for a specific purpose	I can explain how and why I have collected a specific type of data
16	I can analyse and evaluate collected data	I can identify that data can come in many different forms depending on how and why it was collected and that some data will be more useful than other data	I can examine data methodically and in detail looking for patterns, meaning and usefulness	I can explain the methods and tools I have used to analyse my data. I can explain why I am analysing specific data and how important specific data is
17	I can present my findings effectively	I can identify that once collected data has been analysed and evaluated it will need to be shared	I can present data in a form appropriate for my audience	I can explain why I chose to present data in my chosen way
Online Safety		Identify	Explore	Explain
18	I can use technology safely	I can identify examples of safe and unsafe technology use	I can help develop simple safety rules that will keep me safe	I can explain how a specific tool, service or device can be used safely or unsafely
19	I can use technology respectfully	I can identify examples of respectful or disrespectful technology use	I can help develop respectful technology etiquette that will improve my use of technology	I can explain how a specific tool, service, device or interaction can be used or conducted respectfully
20	I can use technology responsibly	I can identify that I am responsible for my use of technology at all times	I can identify that some people may consider that they are not responsible for their actions when using online technology	I can explain how not accepting responsibility for our actions when using technology can harm ourselves and others
21	I know where to report concerns	I can identify ways that concerns can be reported	I know how to report my concerns	I can explain why everyone should report concerns
22	I can identify issues relating to content	I can identify types of content that might cause harm	I can explain why specific content might cause me harm	I can explain why I would need to report issues about content
23	I can identify issues relating to contact	I can identify types of contact that could cause harm	I can explain why specific contact might cause me harm	I can explain why I would need to report issues about contact