Information Technology – Progression Map

Concept
Skill

Information Technology	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computing systems and networks	To explain that technology is something that can help us. To identify examples of technology. To recognise that a computer is an example of technology. To identify the main parts of a computer. To use a keyboard to type and edit text.	To recognise different types of computers used in school. To describe some uses of computers. To identify that a computer is a part of information technology. To talk about uses of information technology	To describe what an input is. To identify input and output devices. To explain that a computer system accepts an input and processes it to produce an output. To explain how computer systems can change the way we work. To recognise that a network is made up of a number of components. To identify network devices around me. To identify the benefits of computer networks.	To describe how networks connect to other networks. To outline how information can be shared via the World Wide Web. To recognise the need for security on the internet. To describe how to access the World Wide Web. To explain how the content of the World Wide Web is created, owned, and shared by people. To describe the current limitations of World Wide Web media.	To recognise that computers can be part of a system in an electronic device. To understand that computers can be connected together to form systems. To recognise input, process, and output in larger computer systems. To recognise that data is transferred using agreed protocols (methods). To recognise the role of computer systems in our lives. To explain that the internet lets people in different places work together.	To recall how to use a search engine. To compare the results from different search engines. To explain why search engines exist. To explain how search results are selected. To explain how ranking is determined by rules, and that different search engines use different rules. To explain how search engines make money by selling advertising space. To define 'communication' To discuss the opportunities that technology offers for communication.

				To explain the benefits of the World Wide Web.	To explain that the internet allows different media to be shared. To evaluate different ways of working together. To recognise that internet collaborations can be public or private.	To list methods of communicating using the internet. To choose an appropriate method of internet communication for a given purpose. To evaluate different methods of online communication.
Creating Media			To recognise how text and images can be used together to convey information. To show that page orientation can be changed. To organise text and image placeholders in a page layout.		To identify that a vector drawing comprises separate objects. To add an object to a vector drawing. To recognise that each object in a drawing is in its own layer. To duplicate, modify and reposition an object.	To review an existing website (navigation bars, header). To recognise that web pages can contain different media types. To recognise that web pages are written by people. To recognise components of a web page layout.

			To move resize and rotate images To recognise how different font styles and effects are used for particular purposes. To review a document.		To explain how alignment and size guides can help create a more consistent drawing. To combine options to achieve a desired effect. To consider the impact of choices made. To create a vector drawing for a given purpose.	To create a new blank web page. To add text to a web page. To embed media in a web page. To recognise the need to preview pages (different screens / devices). To add web pages to a website. To preview a web page (different screen sizes). To insert hyperlinks between pages. To insert hyperlinks to another site. To recognise the implications of linking to content owned by others.

Digital Literacy - Progression Map

Concept
Skill

Digital Literacy	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Internet Safety	To understand why we need to keep passwords safe. To understand although parents and teachers can help you log on, passwords should never be shared with anyone else. To know that we treat people the same online as we do offline.	To understand the importance of communicating safely and respectfully online, and the need for keeping personal information private. To know what to do and who to tell when concerned about content or being contacted.	To demonstrate using computers safely and responsibly, knowing a range of ways to report unacceptable content and contact when online. To develop and understand rules for personal internet safety. To know that some information should be kept private and why.	To develop and understand rules for personal internet safety. To know it is dangerous to meet anyone you have met online. To know what is personal information and why we need to keep it private. To know who to tell if something is uncomfortable online. To understand reliability when using online services. To know how to be respectful online.	To understand what cyberbullying is. To recognise the impact that cyberbullying can have on people. To learn the strategies to avoid getting into or contributing to negative situations online. To share ideas using a range of online methods. To develop key skills and ideas about personal safety when using any form of electronic communication.	To understand what information is personal and how create safe profiles online. To develop an awareness of potential risks and how to prevent them. To demonstrate responsible use of technologies and online services and knows a range of ways to report concerns.

Computer Science – Progression Map

Concept
Skill

Computer Science	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Programming **Algorithms**	To predict the outcome of a command on a device. To list which commands can be used on a given device. To recognise how to run a command (press a button). To match a command to an outcome. To choose a command for a given purpose. To understand that a program is a set of commands a computer can run. To choose a series of commands that can be run as a program. To build a sequence of commands in steps.	To describe that a series of instructions is a sequence. To choose a series of words that can be enacted as a sequence. To explain what happens when we change the order of instructions. To choose a series of instructions that can be run as a program. To create a program. To recognise that you can predict the outcome of a program. To debug a program that I have written.	To explain that programs start because of an input. To explain what a sequence is. To identify that a program includes sequences of commands. To build a sequence of commands. To explain that the order of commands can affect a program's output. To identify that different sequences can achieve the same and different outputs. To create a sequence of commands to produce a given outcome.	To identify everyday tasks that include repetition as part of a sequence, eg brushing teeth, dance moves. To list an everyday task as a set of instructions including repetition. To explain that we can use a loop command in a program to repeat instructions. To identify patterns in a sequence. To use an indefinite loop to produce a given outcome. To plan a program that includes appropriate loops to produce a given outcome.	To define that conditional statements are used in computer programs. To outline that a condition is something that can either be true or false. To explain that instructions in a program will produce specific outcomes. To experiment with a repeat-until loop. To show that a condition can switch program flow in one of two ways. To explain the importance of instruction order in 'if… then… else…' statements.	To define a 'variable' as something that is changeable. To explain that a variable has a name and a value. To experiment with the value of an existing variable. To explain the importance of setting up a variable at the start of a program (initialisation). To explain that if you change the value of a variable, you cannot access the previous value (cannot undo). To use the same variable in more than one location in a program.

	To combine commands in a program. To run a program on a device.			To create two or more sequences that run at the same time.	To explain that a loop can stop when a condition is met, eg an event. To create a count-controlled or event-controlled loop.	To explain that the name of a variable needs to be unique. To explain that the name of a variable is meaningless to the computer.