



Year 11

Algorithms

- To be able to decompose a problem to find a solution that includes sub-solution for each parts.

Programming

- To understand the difference between, and appropriately use if and if, then and else statements.
- To be able to use a variable and relational operators within a loop to govern termination.
- To be able to design, write and debug modular programs using procedures.

Data

- To be able to perform more complex searches for information e.g. using Boolean and relational operators.
- To be able to list a wide range of security measures.

Computer

- To understand the main functions of the operating system.
- To know the difference between physical, wireless and mobile networks.

Communication

- To understand how to effectively use search engines and know how search results are selected.

Information Technology

- To be able to make judgements about digital content when evaluating and repurposing it for a given audience.

Digital Literacy

- Demonstrates responsible use of technologies and online services, and knows a range of ways to report concerns.

Year 10

Algorithms

- To be able to design solutions (algorithms) that use repetition and two-way selection i.e. if, then and else.

Programming

- To be able to declare and assign variables.
- To be able to use selection statements in programs, including an if, then and else statement.

Data

- To be able to understand the difference between data and information.
- To be able to explain basic data security rules.

Computer

- To understand the difference between hardware and application software, and their roles within a computer system.

Communication

- To understand the difference between the internet and internet service (www)

Information Technology

- To be able to create digital content to achieve a given goal through combining software packages.
- To be to use internet services to communicate with a wider audience e.g. blogging.

Digital Literacy

- To be able to recognise what is acceptable and unacceptable behaviour when using technologies and online services.



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Pathway 3

Year 9

Algorithms

- To be able to design simple algorithms using loops, and selection i.e. if statements.

Programming

- To be able to detect and correct simple semantic errors i.e. debugging, in programs.

Data

- To understand that programs can work with different types of data: text, number
- To know some ways of keeping data safe

Computer

- To be able to recognise and can use a range of input and output devices.

Communication

- To understand how to navigate the web and can carry out simple web searches to collect digital content

Information Technology

- To be able to use a variety of software to manipulate and present digital content: data and information.

Digital Literacy

- To be able to use computers safely and responsibly, knowing a range of ways to report unacceptable content and contact when online.

Year 8

Algorithms

- To understand that computers need precise instructions and be able to avoid errors.

Programming

- To understand how to run, check and edit a program.

Data

- To recognise that digital content can be represented in many forms.
- To understand the need to keep data safe

Computer

- To recognise a range of input and output devices.

Communication

- To be able to obtain content from the world wide web using a web browser.

Information Technology

- To be able to use software (with guidance) to create, store and edit digital content using appropriate file and folder names.

Digital Literacy

- To understand the importance of communicating safely and respectfully online, and the need for keeping personal information private.



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Pathway 3

Year 7

Algorithms

- To understand that computers work step by step and can only do what humans tell them.

Programming

- To understand how to run, check and change a program with guidance.

Data

- To recognise that digital content can be represented in different forms.
- To understand the need to keep data safe

Computer

- To recognise a range of input and output devices.

Communication

- To be able to obtain content from the world wide web using a web browser with guidance.

Information Technology

- To be able to use software (with guidance) to create, store and edit digital content using appropriate file and folder names.

Digital Literacy

- To be able to identify some of the ways of how to keep personal details safe.
- To know a couple of facts that the human element contributes to the risks of using computers