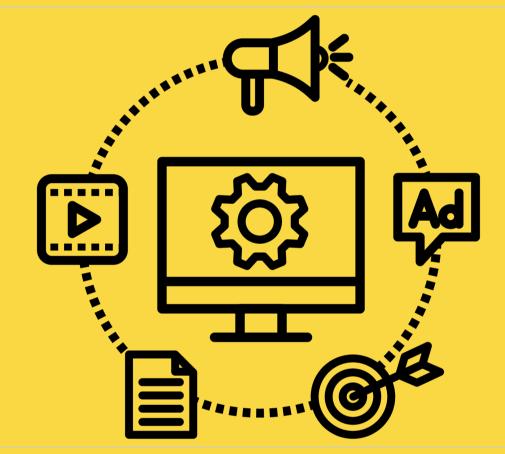


KS3 COMPUTING



PROGRAMMING

DIGITAL MEDIA



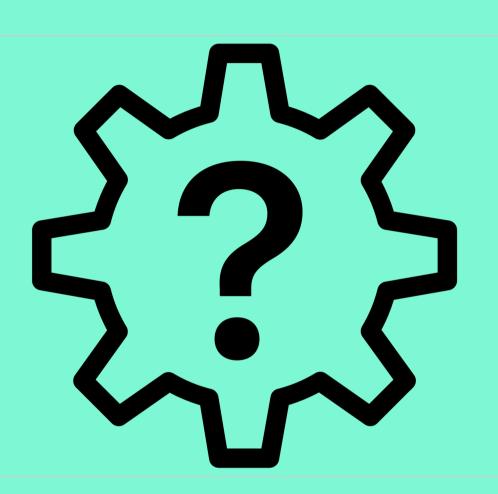
Ever wondered how your favorite games or apps work? It's all about **programming!** In KS3, you'll learn to give instructions to computers using **code**.

You'll get to design your own programs, understand algorithms (step-by-step instructions), and become a detective to debug any mistakes. This journey boosts your logical thinking and creativity, helping you in all your subjects.

Think about all the ways you see stuff on screens – videos, games, social media, news. That's all digital media! You'll learn to:

- Create cool stuff: Make your own digital art, edit videos, or design presentations.
- Understand the tech: See
 how different apps and
 devices work together.
 Get ready to explore, create,
 and master the digital world!

COMPUTER SYSTEMS

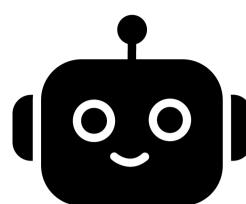


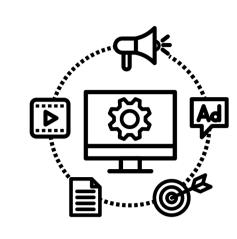
Ever wondered what makes your computer, tablet, or phone actually work? You'll learn about:

- Hardware & Software: The physical parts (like the screen) and the programs that run them (like your games).
- Networks: How devices connect to share info, from your classroom to the internet.
- Cyber Security: Staying safe online and protecting your digital world.



YEAR 7 COMPUTING PROGRESSION PATHWAY







LEVEL

PROGRAMMING

DIGITAL MEDIA

COMPUTER SYSTEMS

EMERGING

I need to: Put blocks together in the right order.

I need to: Identify different types of media.

I need to: Identify 3 parts of a computer.

DEVELOPING

I need to: Successfully create a simple program that follows a sequence, including basic inputs (like buttons) and outputs (like showing messages).

I need to: Use basic features of digital media software to create or edit simple content (e.g., crop an image, add text to a video, record audio).

I need to: Identify and name the key hardware components of a computer (like the CPU or memory) and tell the difference between hardware and software.

SECURE

I need to: Use variables to store data, AND make my programs make decisions using 'if/else' statements based on conditions.

I need to: Combine different digital media types (like images, text, audio) to create a simple multimedia product for a clear purpose (e.g., a basic presentation or short animation).

I need to: Explain the basic job of input, output, and storage devices.

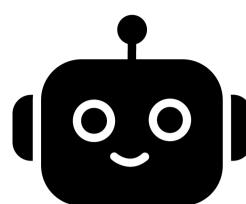
MASTERED

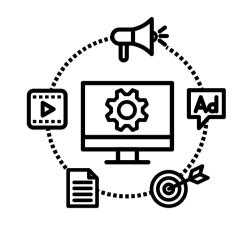
I need to: Independently design and write programs that incorporate loops (iteration) and a combination of control structures to solve problems and create interactive projects. I need to: Independently select and apply appropriate digital tools and techniques to produce digital media that effectively conveys a message to a specific audience.

..I need to: Demonstrate how data is shown in binary (bits and bytes) and convert small numbers between binary and regular numbers.



YEAR 8 COMPUTING PROGRESSION PATHWAY







LEVEL

PROGRAMMING

DIGITAL MEDIA

COMPUTER SYSTEMS

EMERGING

I need to: Successfully create a simple program that follows a sequence, including basic inputs (like buttons) and outputs (like showing messages).

I need to: Use basic features of digital media software to create or edit simple content (e.g., crop an image, add text to a video, record audio).

I need to: Give an example of a network.

DEVELOPING

I need to: Use variables to store data, AND make my programs make decisions using 'if/else' statements based on conditions.

I need to: Combine different digital media types (like images, text, audio) to create a simple multimedia product for a clear purpose (e.g., a basic presentation or short animation).

I need to: Describe the fundamental concept of a computer network, distinguishing between Local Area Networks (LANs) and Wide Area Networks (WANs) with examples of each.

SECURE

I need to: Independently design and write programs that incorporate loops (iteration) and a combination of control structures to solve problems and create interactive projects. I need to: Independently select and apply appropriate digital tools and techniques to produce digital media that effectively conveys a message to a specific audience.

I need to: Outline the key components and protocols that enable the Internet to function.

MASTERED

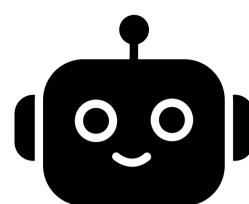
I need to: Test my code for errors, using debugging techniques to identify and fix logical and syntax issues in my own and simple programs from others.

I need to: Manipulate and enhance various digital media elements (e.g., adjusting colour, applying effects, refining audio quality) to improve the overall aesthetic and impact of my work.

I need to evaluate the broader impact of computer systems and networks on individuals, society, and the environment, discussing both positive implications (e.g., communication, efficiency) and negative consequences



YEAR 9 COMPUTING PROGRESSION PATHWAY







LEVEL

PROGRAMMING

DIGITAL MEDIA

COMPUTER SYSTEMS

EMERGING

I need to: Use variables to store data, AND make my programs make decisions using 'if/else' statements based on conditions.

I need to: Combine different digital media types (like images, text, audio) to create a simple multimedia product for a clear purpose (e.g., a basic presentation or short animation).

I need to: name at least two rules for staying safe online.

DEVELOPING

I need to: Independently design I need to: Independently select and write programs that incorporate loops (iteration) and a combination of control structures to solve problems and create interactive projects.

and apply appropriate digital tools and techniques to produce digital media that effectively conveys a message to a specific audience.

I need to: Identify common cyber security threats and apply security practices to protect my personal information and devices.

SECURE

I need to: Test my code for errors, using debugging techniques to identify and fix logical and syntax issues in my own and simple programs from others.

I need to: Manipulate and enhance various digital media elements (e.g., adjusting colour, applying effects, refining audio quality) to improve the overall aesthetic and impact of my work.

I need to: Apply seaching and sorting algorithms to organise and locate specific information.

MASTERED

I need to: Decompose complex programming problems into smaller, manageable subproblems, and begin to use abstraction to create more efficient and reusable code

I need to: Plan and execute a complete digital media project, demonstrating an understanding of file formats, ethical considerations (e.g., copyright, consent), and accessibility features.

I need to: Analyse data to identify significant trens, patterns and insights.