

LEARNING JOURNEY & LEARNING JOURNEY

YEAR 7 – COMPUTING: TERM 3



UNDERSTANDING COMPUTERS – How computers work

OVERALL LEARNING JOURNEY FOR KEY STAGE 3 COMPUTING

	TERM 1	TERM 2	TERM 3
YEAR 7	MY DIGITAL WORLD Be SMART online and using ICT Software Mastery: Microsoft Suite	AUDIENCE AND PURPOSE Create products that have impact Software Mastery: PowerPoint	UNDERSTANDING COMPUTERS How computers work Software Mastery: Scratch
YEAR 8	DIGITAL MEDIA Being creative in a digital world Software Mastery: Photoshop	CYBER SECURITY Living in the modern world Software Mastery: PowerPoint	PYTHON BASICS Begin to programme Software Mastery: Python
YEAR 9	CREATIVE DESIGN Creative iMedia taster Software Mastery: Photoshop	ADVANCED PYTHON Computer Science taster Software Mastery: Python	CREATE A VIDEO Research DEVELOPING technology Software Mastery: Premier Elements

This unit is an introduction to the fundamentals of programming, such as iteration and selection using Scratch. Invented by MIT, Scratch is an open-source system that enables individuals to program interactive stories, games, and animations. Instead of typing code, Scratch uses visual blocks like puzzle pieces to create a program.

Aim of this unit:

This unit will take the whole of this term to complete. Topics to be covered:

- How to use Scratch as an introduction to programming, learning key programming concepts
- How a computer system works, including the components that make up a computer and how these work Evaluation in relation to audience and purpose

The aim of the end of the unit is to design and create a game in Scratch. This will be completed over a series of lessons, which will be assessed on demonstration of knowledge of the fundamentals of programming concepts.

Assessment:

Each lesson contains tasks to complete independently. Some of the Python exercises will be logged online whereas others will be assessed on paper.

At the end of this unit there will be a 40-minute exam paper on all the topics covered this year.

This test, as well as the skills demonstrated on Scratch will determine the final grade for this unit.

Homework:

Will be set at least once a fortnight with the expectation only 20 minutes is spent completing these. Homeworks will be a combination of written, research, investigative tasks.



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DATE:			
RAG rate your understanding:		LESSON 1: Animate a sprite	
☹	☺	☺	Program Scratch Back drop Sprite Event Wait command

DATE:			
RAG rate your understanding:		LESSON 2: Around a maze	
☹	☺	☺	Collison detection Forever loop IF ... THEN condition

DATE:			
RAG rate your understanding:		LESSON 3: Shark and fish	
☹	☺	☺	Import Shrink Rotation Variable Delay

DATE:			
RAG rate your understanding:		LESSON 4: Input Output and Storage	
☹	☺	☺	Hardware Software Input Output Storage Cloud

DATE:			
RAG rate your understanding:		LESSON 5: CPU, RAM, and ROM	
☹	☺	☺	CPU RAM ROM Instruction Speed Dual Core

DATE:			
RAG rate your understanding:		AWE & WONDER: AI and machine learning	
☹	☺	☺	Facial recognition Fingerprint recognition Neural network Self-driving cars Sensors Embedded Camera Push button Rules Decisions Training data Machine learning Intelligence Virtual assistants



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