

Year 10 ~ GCSE Computer Science Timeline Sept 2014

		Chapter	Lessons	Time needed?	
September - October 2014 ~ 1st Half Term (app 20 hours)	Computing Fundamentals - Exam content	Introduction to Computer Science	Lesson 1 - What is Computer Science?	1 hour	
			Lesson 2 - What is a Computer Program?	2 hours	
			Lesson 3 - Computer Programming using Python	2 hours	
		Constants, Variables and Data Types	Lesson 1 - Data Types	2 Hours	
			Lesson 2 - Constants and Variables	2 Hours	
			Lesson 3 - Data Types Part 2 ~ Boolean Expressions	2 Hours	
		Structures	Lesson 1 - Introduction to programming Structures	1 Hour	
			Lesson 2 - Data Structures ~ Arrays	2 Hours	
			Lesson 3 - Data Structures ~ Representing Lists.	1 Hour	
			Lesson 4 - Data Structures ~ Binary Search Trees	1 Hour	
			Lesson 5 - Data Structures ~ Memory Allocation	1 Hour	
		Procedures and Functions	Lesson 1 - Defining Procedures and Functions	1 Hour	
			Lesson 2 - How Procedures and Functions are used?	2 Hours	
		November - December 2014 ~ 2nd Half Term (app 15 hours)	Scope of variables, constants, functions and procedures	Lesson 1 - What is meant by Scope?	1 Hour
				Lesson 2 - Scope and Procedures	1 Hour
End of Topic Test 1					
Program Flow Control	Lesson 1 - Designing a program		1 Hour		
	Lesson 2 - Using Flow charts		1 Hour		
	Lesson 3 - Using Selection in Flowcharts		1 Hour		
	Lesson 4 - Using Repetition in Flowcharts		1 Hour		
	Lesson 3 - Program Control Flow charts	1 Hour			
	Lesson 4 - Derived structures	1 Hour			

		Algorithms	Lesson 1 - Algorithms and Pseudocode	3 Hours	
			Lesson 2 - Using Selection in Algorithms	1 Hour	
			Lesson 3 - Using Repetition in Algorithms	1 Hour	
			Lesson 4 - Algorithms in file compression	1 Hour	
			Lesson 5 - Algorithms in security	1 Hour	
		End of Topic Test 2			
		Error Handling	Lesson 1 - Error Handling	2 Hours	
End of Topic Test 3					
January - February 2015 ~ 3rd Half Term (app 15 Hours)	Controlled Assessment- Gaming Application	Practice Scratch	Lesson 1 - Basic Scratch skills	1 Hour	
			Lesson 2 - Creating a simple game	1 Hour	
			Lesson 3 - Understanding built in Scratch functions	1 Hour	
			Lesson 4 - Understanding variables in Scratch	1 Hour	
			Lesson 5 - Understanding Selection in Scratch	1 Hour	
			Lesson 6 - Understanding Repetition in Scratch	1 Hour	
			Lesson 7 - Understanding Data Structures in Scratch	1 Hour	
February - April 2015 ~ 4th Half Term (app 15 hours)		Controlled Assessment (25 hours)	Lesson 1 - Understand AQA gaming application brief	1 Hour	
			Lesson 2 - Design of Solution	5 Hours	
			Lesson 3 - Solution Development	15 Hours	
			Lesson 4 - Solution Development Continued	5 Hours	
			Lesson 4 - Programming Techniques	5 Hours	
April - May 2015 ~ 5th Half Term (app. 15 Hours)			Lesson 5 - Testing and Evaluation	5 Hours	

May - July 2015 ~ 6th Half Term (app 15 hours) (work experience 2 weeks)		Completing and submitting controlled assessment	Lesson 1 - Catch up time and improvements made on teacher feedback	4 hours	
	Computing Fundamentals - Exam content	Systems	Lesson 1 - Computer Systems	2 Hours	
			Lesson 2 - Cloud Computing	1 Hour	
		Hardware	Lesson 1 - Computer Hardware	1 Hour	
			Lesson 2 - Memory	1 Hour	
			Lesson 3 - Peripherals	2 Hours	
		End of Topic Test 4			
		CPU	Lesson 1 - CPU	1 Hour	
		Memory	Lesson 1 - Memory	1 Hour	
		Secondary Storage	Lesson 1 - Secondary storage	1 Hour	
		End of Topic Test 5			