Year 7		Curriculum Checkpoints: What do students know and what can they do?			
Computer Science		Establishing	Securing	Flourishing	Excelling
E-Safety and Microsoft Office	Knowledge	Understand the terms E-safety, social media, and cyber bullying.	Explain the terms E-safety, social media and cyber bullying.	Explain in detail the terms E-safety, social media and grooming.	Explain in detail the terms E-safety, social media and grooming and give real work scenarios.
		Identify signs of cyber bullying and dangers of social media.	Explain the signs of cyber bullying and dangers of social media and some ways to stay safe online.	Explain the dangers of social media and grooming and give advice on how to stay safe online.	Explain a large number of dangers of social media and grooming and give appropriate advice on how to stay safe online.
	Practical Skills	Insert images and text onto some of the Microsoft products being looked at.	Create a leaflet, poster or letter on the E-safety topic by including appropriate images and text. Some text may be copied from the internet. Create a basic chart or graph from a data set in Excel.	Select the most appropriate Microsoft product to creates an informative leaflet, poster or letter on the E-safety topic by including appropriate images and text. Little text is copied from the internet. Produce a chart or graph from a data set and begin to create formulae to manipulate data	Select the most appropriate Microsoft product to creates an informative leaflet, letter or poster on the E-safety topic by including appropriate images, text and advice. No text is copied from the internet. Correctly use Excel to produce near professional looking charts and graphs and accurate create formulae to manipulate data.
		Little formatting has been done to improve the appearance of the digital artefact.	Some formatting has been done to improve the appearance of the digital artefact.	Appropriate formatting has been done to improve the appearance of the digital artefact.	Appropriate formatting has been done to create a near professional digital artefact.
Binary Representation	Knowledge	Identify what a binary number looks like as well as the difference between binary and denary.	Explain why computers use binary	Explain why computers use binary as well as why hexadecimal has been invented	Explain why computers use binary as well as why hexadecimal has been invented and can give examples of where hex is used in the real world.
		Identify that computers are made up of switches	Explain that computers are made up of switches	Explain that computers are made up of switches and link this to why they use binary.	Explain that computers are made up of switches and link this to why they use binary and how everything represented in computer systems is made up of binary .
	Practical Skills	Perform binary to denary and denary to binary conversion for 4 bit numbers	Perform binary to denary conversions and denary to binary conversions for 8 bit numbers	Perform binary to denary conversions, denary to binary conversions and hexadecimal to denary conversions for 8 bit numbers	Complete any number system conversion between binary, denary and hexadecimal for numbers that are 8 bits and over.
Python Turtle	Knowledge	Identify an algorithm when shown one. Give basic examples of where algorithms are used in the real world.	Solve simple problems by creating algorithms to draw basic shapes using the python turtle programming language.	Explain why the use of for loops is better in programming. Solve more complex problems and create more interesting shapes	Explain with examples the use of for loops as well as the use of procedures and the benefits they provide.
	Practical Skills	Write algorithms to perform basic tasks in plain english. Use basic commands in Python Turtle to draw simple shapes	Create simple shapes using the Python Turtle programming language and make use of more commands such as picking the pen up and putting the pen down	Create more interesting looking shapes/designs using advanced programming techniques such as for loops. Implement the use of colours into shapes	Develop complex images in Python Turtle using a range of programming techniques such as for loops and procedures as well implementing colours