Year 7 Computing Curriculum Overview

Poynton High School and Performing Arts College

	What will I learn?	How will I learn it?	Why is it important that I learn this?	Why am I learning this now?
Year 7 HT 1	**Collaborating online respectfully** • Log on to school network and Google Classroom • Uploading and sharing documents through Classroom. • Cyberbullying and staying safe online	Teachers will introduce logging in to Google Classroom and the School network. Practical demonstrations - uploading documents to Google docs and opening documents at home - turning documents in.	Students need to be able to use the school network safely and respectfully. Students need to know who they are communicating online with and consider etiquette.	This unit has been devised as a transitional unit to allow learners to confidently move from Year 6 to Year 7. Students can confidently begin using the school computers and software in other lessons.
Year 7 HT 2	**Programming in Scratch** The main programming concepts covered in this unit are • sequencing • variables • selection • count-controlled iteration.	Students are introduced to the main programming constructs in Scratch through a series of practical challenges that students will have to edit and complete following instruction. Teacher led instructions and videos from Oak National academy All of the examples and activities for this unit use Scratch 3.	This unit is the first programming unit of KS3. The aim of this unit and the following unit ('programming 2') is to build students' confidence and knowledge of the key programming constructs. Importantly, this unit does not assume any previous programming experience, but it does offer learners the opportunity to expand on their knowledge throughout the unit.	This unit progresses students' knowledge and understanding of programming – students will have experience of Scratch programming from primary so should have familiarity, but this unit explores the main programming constructs of sequence, selection and iteration in a practical way
Year 7 HT 3	**Computers and Microbits** Students will learn all about Hardware and software and the components of a computer system. They will learn about RAM and ROM and the different input and output devices used.	Teacher led presentations Videos Practical activities Response forms on Google Classroom	Build students' knowledge of computer systems and how a system works. Opportunities to see the computer working in the palm of their hands	Computers and machines are going to play such an important role in a young person's life in the digital age. Engaging and communicating with one and getting instant feedback will hopefully inspire them and enthuse them to want to do more. Benefits of knowing how they work and communicate is a basic skill today.

	They will experience and engage with input and output components on the microbit. They will have the opportunity to write some programs on the computers and even interface with a Robot.			
Year 7 HT 4	**Programming Scratch 2** This unit focuses on the development of the following key techniques: • Decomposition • Subroutines • Condition-controlled • iteration • Lists • Problem solving	Students are introduced to the main programming constructs in Scratch through a series of practical challenges. All of the examples and activities for this unit use Scratch 3. Teacher led instructions and videos from Oak National academy.	Programming is an important skill and National Curriculum expects students to have had experience with programming in both visual and text-based programming by the end of KS3. Programming is fun and leads to plenty of career opportunities going forward. Developing interest at an early makes it easier to understand later on!	This second unit builds on adding more programming constructs again editing existing examples and being explicit with the theory or programming. These theoretical concepts can then be applied to programming in year 8 & 9 when they are introduced to text-based languages.
Year 7 HT 5	**Spreadsheet modelling** • Learn formatting techniques. • Apply basic formulae • Using some of the inbuilt functions. • Create graphs and charts	Use spreadsheet models and add formulas to make it easy to understand and manipulate data. Create a Google form to collect your own data. Content and worksheets from Google Classroom – teacher led direction.	The unit uses engaging activities to progress learners from using basic formulas to writing their own COUNTIF statements. This unit will give students a good set of skills that they can use in computing lessons and in other subject areas.	Spreadsheet modelling is a skill that is in steady decline as a curriculum shifted to more computing and programming. It also helps promote basic numeracy skills and has cross curricular links with other subjects.
Year 7 HT 6	**Gaining support for a cause** Students will develop their understanding of information	Learn about and develop skills on digital literacy. Research copyright and other legal issues.	Students will develop software formatting skills and explore concerns surrounding the use of other people's work, including licensing and legal issues.	This unit progresses students' knowledge and understanding of licensing and legal issues surrounding the use of online sources of information. They will also gain an understanding of how to apply techniques to help determine the reliability of a source.

	technology and digital literacy skills. Create digital content	Create blog posts to gain support for Conduct their own research into an area for their project.		Learners will develop practical skills in using software to make a blog that could be published online.