Hanley Castle High School Curriculum Outline for parents: **Computing**

		Autumn Term	Spring Term	Summer Term
Year 7	**Topic** Big question: Computing the Hanley Way Responsible Use of Computing	**Introduction to Our Network** ■ ■ • Usernames, • logging in, security, • being responsible, • finding our way around email and Office 365 **WES (Worcestershire E-Safety) Project** ■ ■ • Creating a logo for a local E-Safety Organisation • Developing printed publications • Modelling data using spreadsheets • Testing hypotheses using databases • Creating a Responsible Computing video	**Hardware and Software** ■ ■ ■ • The history of computers, • how modern computers work. • What's what in a dismantled computer • What's binary? • Software • Design your own "Dream machine" **Computational Thinking** ■ • Robot Jam Sandwiches • What is Computational Thinking • What I Abstraction? • Understanding Algorithms • Why breaking a problem down (decomposition) is useful	**Games Design in Scratch** ■ ■ ■ • Research Games • Create your brand and marketing • Design your game • Practice Scratch Skills • Building your game • Testing • Evaluate
	Disciplinary knowledge/skills	■ Computer Science ■ Information Technology ■ Responsible Use		
	Links – why now?	By learning this at the beginning of Year 7 they learn skills that will support them in their learning not just in IT but across the broader curriculum.	Learning how computers work will help learners to make decisions concerning the best device and applications for the tasks they are faced with. Knowing what is inside a computer early in Year 7 will help problem solving later in Key Stage 3 because they will think about inputs, processes and outputs. This topic will also explain why binary exists, what we use it for, and how it is used to represent images on their screen – how computers process instructions.	By learning about computational thinking students will be able to quickly break down real world problems into simple terms This will help them to solve problems in programming challenges later (in this case the big Scratch project).