RAEDWALD ACADEMY TRUST

Programme of study and progression outline:

ICT and Computing KS3

SUBJECT – ICT and Computing KS3				
	The key fundamentals of programming	**How to recognise reliable digital sources**	**How logic is used in computing and real life context**	**How to use technology safely, responsibility and securely protecting their online identity.**
Year 7	Introduction to algorithms Be able to create flow diagrams for everyday tasks. E.g. make tea, cook a pizza, and travel to a point.	To recognise that not all digital resources are trustworthy	Recognise the use of switches on/off in computing Use digital models to review how these work	Understanding what an online identity is.
Year 8	Recognise block based languages and place them in order. Create programs using instructions/support Introduce the term debug and encourage students to problem solve their own issues	Use sort and search tools to select digital documents with the correct permissions	Interpret simple logic diagrams to describe possible outcomes	Recognise the difference between appropriate and inappropriate content and personal and sensitive data.
Year 9	Identify key vocabulary used in programing. E.g. conditions, loops, flow, input, output, variables. Create programs that solve real world problems using block based languages.	Create, reuse, revise and repurpose digital artefacts for a given audience	Using Boolean algebra on two or more conditions to create a simple program	Be able to weigh up risks and assess the consequences of their online activities.

SUBJECT – ICT and Computing KS3				
	How computational abstracts model real-world problems	**Solve problems using a programming language.**	**How hardware and software communicates and the language used to do this**	**How designs and features change depending on the target audience**
Year 7	Describe the purpose of a given model (spreadsheet/database)	Understanding that computers require programming to work. Be able to identify different programming blocks.	Understanding the difference between hardware and software Explore how instructions are stored and executed	Be able to identify target audiences. I.e. products for children, adults, girls, boys.
Year 8	Create basic models that use some formatting and basic calculations. Use the model to answer questions and evaluate data.	Place block based instructions in the correct order to create working program	Be able to describe a variety of hardware and software and the uses in wider society. E.g. how technology is used in healthcare, education, gaming.	Be able to identify target audiences and describe key features of these groups Create designs taking into account target audience groups
Year 9	Use a model to answer questions and evaluate data. Design, use and evaluate your own computational model to answer real-world problems. E.g. financial planning for an event.	Introduce text based languages. Be able to problem solve and debug programs in either block based or text based languages	Identify and order the fetch, decode and execute cycle. Identify and describe how this is used in everyday objects. E.g. washing machines, cars, phones. Be able to decipher a message written ASCII.	Dissect a client brief and create a design/product that encompasses the key requirements of the brief