

Year 7 Progression Map 2019-2020

Year 7	Theme			
LEVEL	Programming	Data Representation	Hardware & Software	Creative Project
Topic Coverage	Algorithms Programming & Development	Data & Data Representation	Hardware/Processing Communication & Networks	Information Technology
L M H	<p>Understands what an algorithm is and is able to express simple linear (non-branching) algorithms symbolically. (AL)</p> <ul style="list-style-type: none"> Understands that computers need precise instructions. (AL) Demonstrates care and precision to avoid errors. (AL) 	<p>Recognises that digital content can be represented in many forms. (AB) (GE)</p> <ul style="list-style-type: none"> Distinguishes between some of these forms and can explain the different ways that they communicate information. (AB) 	<ul style="list-style-type: none"> Understands that computers have no intelligence and that computers can do nothing unless a program is executed. (AL) Recognises that all software executed on digital devices is programmed. (AL) (AB) (GE) 	<p>Uses software under the control of the teacher to create, store and edit digital content using appropriate file and folder names. (AB) (GE) (DE)</p> <ul style="list-style-type: none"> Understands that people interact with computers. Shares their use of technology in school. Knows common uses of information technology beyond the classroom. (GE) Talks about their work and makes changes to improve it. (EV)
L M H	<ul style="list-style-type: none"> Knows that users can develop their own programs, and can demonstrate this by creating a simple program in an environment that does not rely on text e.g. programmable robots etc. (AL) Executes, checks and changes programs. (AL) Understands that programs execute by following precise instructions. (AL) 		<ul style="list-style-type: none"> Obtains content from the world wide web using a web browser. (AL) Understands the importance of communicating safely and respectfully online, and the need for keeping personal information private. (EV) Knows what to do when concerned about content or being contacted. (AL) 	
L M H	<p>Understands that algorithms are implemented on digital devices as programs. (AL)</p> <ul style="list-style-type: none"> Designs simple algorithms using loops, and selection i.e. if statements. (AL) Uses logical reasoning to predict outcomes. (AL) Detects and corrects errors i.e. debugging, in algorithms. (AL) 	<ul style="list-style-type: none"> Recognises different types of data: text, number. (AB) (GE) Appreciates that programs can work with different types of data. (GE) Recognises that data can be structured in tables to make it useful. (AB) (DE) 	<ul style="list-style-type: none"> Recognises that a range of digital devices can be considered a computer. (AB) (GE) Recognises and can use a range of input and output devices. Understands how programs specify the function of a general purpose computer. (AB) 	<ul style="list-style-type: none"> Uses technology with increasing independence to purposefully organise digital content. (AB) Shows an awareness for the quality of digital content collected. (EV) Uses a variety of software to manipulate and present digital content: data and information. (AL) Shares their experiences of technology in school and beyond the classroom. (GE) (EV) Talks about their work and makes improvements to solutions based on feedback received. (EV)
L M H	<ul style="list-style-type: none"> Uses arithmetic operators, if statements, and loops, within programs. (AL) Uses logical reasoning to predict the behaviour of programs. (AL) Detects and corrects simple semantic errors i.e. debugging, in programs. (AL) 		<ul style="list-style-type: none"> Navigates the web and can carry out simple web searches to collect digital content. (AL) (EV) Demonstrates use of computers safely and responsibly, knowing a range of ways to report unacceptable content and contact when online. 	