Computing Learning Journey Year 7

Autumn Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	
Topic	**Using Computers Safely and Effectively**								HALF TERM
Challenge Objective and Content (for all learners)	• Recognise the need to be safe and respectful online including strangers on the internet and sharing of personal information. • Be able to discuss the different aspects of Online Safety including using strong passwords, Phishing and Spam. • Be able to login and use the school systems including google classroom and Class Charts. • How to construct an effective email and send it to the correct recipients • How to use keyboard shortcuts and practicing typing skills.								
Inspire Opportunities	Research & worksheets on the History of the internet and how it developed and continues to develop.								
Assessment Opportunities	Formative assessment: Through teacher observation, questioning, quizzes and marked activities Summative assessment: End of Unit assessment								

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Topic	**Introduction to Computing**						CHRISTMAS
Challenge Objective and Content (for all learners)	• Identification of input and output devices. • To be able to state the hardware that computers use. • To understand that computers use different file sizes and how these are created/converted • To understand what binary is and how computers use it.						
Inspire Opportunities	Worksheets on different types of hardware, inputs and outputs and questions on different files sizes and Binary Addition each with increasing difficulty.						
Assessment Opportunities	Formative assessment: Through teacher observation, questioning, quizzes and marked activities Summative assessment: End of Unit assessment						

Spring Term

Computing Learning Journey Year 7

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Topic	**Computational Thinking**						HALF TERM
Challenge Objective and Content (for all learners)	• To be able to understand the fundamentals of Computational Thinking. • To be able to describe and explain what abstraction, decomposition and problem solving is • To be able to apply abstraction, decomposition and problem-solving skills to everyday problems. • To learn the components of flow charts						
Inspire Opportunities	Using, understanding and creating everyday algorithms. Discussions on Computing in "real world" contexts, including careers. How computational thinking is applied Construction of flowcharts						
Assessment Opportunities	Formative assessment: Through teacher observation, questioning and marked activities Summative assessment: End of Unit assessment						

	Week 1	Week 2	Week 3	Week 4	Week 5	
Topic	**Data Analysis using Spreadsheets**					EASTER
Challenge Objective and Content (for all learners)	• To be able to understand the fundamentals of spreadsheets • To be able to choose appropriate formula when analysing data – MAX, SUM, AVERAGE, MIN, COUNTA, COUNTIF • To be able to implement conditional formatting • Creating charts and Graphs from already formulated data					
Inspire Opportunities	• Working on how to visually model data for easy comparisons and how this can be used in real world contexts.					
Assessment Opportunities	Formative assessment: Through teacher observation, questioning and marked activities Summative assessment: End of Unit assessment					

Computing Learning Journey Year 7

Summer Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Topic	**Programming Essentials – Part I – Micro:Bits**						**HALF TERM**
Challenge Objective and Content (for all learners)	• Define and modify sequence and selections in block code. • Identify and use variables in block coding.						
Inspire Opportunities	• Apply programming constructs to solve "real world" problems • Using boolean operators and functions within the coding environment						
Assessment Opportunities	Formative assessment: Through teacher observation, questioning and marked activities Summative assessment: End of Unit assessment						

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Topic	**Programming Essentials –Part II – Scratch Programming**						**SUMMER**
Challenge Objective and Content (for all learners)	• To be able to use programming skills learnt in another IDE (Micro:bit) and transfer those skills to the Scratch IDE • Consolidate knowledge of programming ie variables, sequences, selection and introduce iteration • Begin to understand how an IDE can be helpful for coding • Develop a Maze game which uses all the elements previously learnt to consolidate learning.						
Inspire Opportunities	The use of comparable operators and Boolean operators in block coding. Extensions for more complex block coding.						
Assessment Opportunities	Formative assessment: Through teacher observation, questioning and marked activities Summative assessment: Teacher assessment of practical task						