Rainford High School – Department: Computer Science

	Year 7 Curriculum					
	Half-Term 1	**Half-Term 2**	**Half-Term 3**	**Half-Term 4**	**Half-Term 5**	**Half-Term 6**
Topic	**Digital Literacy**	**Scratch Games Development**	**Computer Systems**	**Data Storage and Representation**	**Intro to Programming (Micro:bit)**	**Application of Programming (Micro:bit)**
Essential knowledge, skills and understanding	- What e-safety is - How to create and structure folders upon the computer - Uses of different software and digital literacy skills.	- What jobs and careers you can do with Computing - Creation of game within Scratch, variety of different skills including sequence, selection, iteration. Character movement, collision detection, AI, variables and scoring.	- e-safety online behaviour, how to communicate online and cyberbullying - How computer systems work - Parts of the computer and their functions - How ROM and RAM work and their functions	- How operating systems work and their functions - How data is representation in a computer - How to convert from denary to binary and vice versa - What ASCII is and how it is used - How images are created with binary and creation of own binary image. - How sorting algorithms work and perform a sorting algorithm.	- e-safety, sharing personal data - Intro to Micro:bit creating a basic program - What is a flowchart and how to read and write them - What the following programming techniques are and how they can be applied within the Micro:bit (variables, sequence, selection, iteration)	- Designing a board game - Application of skills within Micro:bit - Testing and evaluating a project.
Assessments and assessment focus	Retrieval testing at the start of each lesson: - esafety - folder structures - word processing formatting skills - powerpoint formatting skills	Retrieval testing at the start of each lesson: - jobs and careers - image editing tools and skills - scratch tools and skills - scratch fixing/ amending code	Retrieval testing at the start of each lesson: - esafety - computer components, identification and their purpose	Retrieval testing at the start of each lesson: - functions of ROM and RAM - functions of operating system - converting between binary and denary and vice versa - how ASCII is used	Retrieval testing at the start of each lesson: - micro:bit reading/ fixing/ amending code - what is selection - what is a variable - what is iteration	Retrieval testing at the start of each lesson: - micro:bit reading/ fixing/ amending code - what is selection - what is a variable - what is iteration

	Formative assessment: - Workbook Completed - Assessment 7.1.1 - Letter Created - Presentation Created - Scratch Game Created	**Formative assessment:** - Workbook Completed - Assessment 7.1.2 - Scratch Game Created Independent study courses/ badges on www.code.org homework completed	**Formative assessment:** <u>- Assessment Window 1</u> - Workbook Completed - Assessment 7.2.1 - Scratch Game Created	- how images are created - performing a sorting algorithm on a given set of data **Formative assessment:** - Workbook Completed - Assessment 7.2.2 - Binary Image created Independent study courses/ badges on www.code.org homework completed	**Formative assessment:** - Workbook Completed - Assessment 7.3.1 - Micro:bit projects created	**Formative assessment:** <u>- Assessment Window 2</u> - Workbook Completed - Assessment 7.3.2 - Micro:bit projects created Independent study courses/ badges on www.code.org homework completed