LITERATURE-LED CURRICULUM

COMPUTING

Curriculum Intent

Spa's Computing curriculum aims to equip pupils so that they will:

can understand and apply the fundamental principles and concepts of **computer science**, analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems.

can evaluate and apply **information technology**, including new or unfamiliar technologies, analytically to solve problems.

develop **digitally literate** pupils that are responsible, competent, confident and creative users of information and communication technology.

National Curriculum Coverage

	Online Safety	Digital Literacy	Computer Science (Coding)
design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts			✔
use sequence, selection, and repetition in programs; work with variables and various forms of input and output			✔
use logical reasoning to explain how some simple algorithms work and to detect and			✔
correct errors in algorithms and programs			✔
understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration		✔	
use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content		✔	
select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information		✔	
use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	✔		

Curriculum Sequencing

1. Explore
2. Develop
3. Develop & Improve
4. Problem Solving
5. Create
6. *Big Picture*

	Autumn	Spring	Summer
Year 3	**Online Safety** 1. Self-image & identity 2. Online Relationships 3. Online reputation and online bullying 4. Managing online information 5. Big Picture (Healthy lifestyle)	**Digital Literacy** 1. Locating, creating and saving 2. Using effects to engage an audience 3. Editing and improving for impact 4. Searching for information digitally 5. Creating digital files 6. Drawing conclusions for presenting	**Computer Science (Coding)** 1. Coding sequences to create algorithms 2. Repeated loops in algorithms 3. Multiple actions in algorithms 4. Debugging to improve 5. Using algorithms to create images 6. Applying skills to solve a problem
Year 4	**Online Safety** 1. Self-image & identity 2. Online Relationships 3. Online reputation and online bullying 4. Managing online information 5. Big Picture (Healthy lifestyle)	**Digital Literacy** 1. Locating, creating and saving 2. Using effects to engage an audience 3. Editing and improving for impact 4. Searching for information digitally 5. Creating digital files 6. Drawing conclusions for presenting	**Computer Science (Coding)** 1. Coding sequences to create algorithms 2. Debugging sequences 3. Solving problems by debugging 4. Using the 'if' command 5. Building a game 6. Making edits and improvements
Year 5	**Online Safety** 1. Self-image & identity 2. Online Relationships 3. Online reputation and online bullying 4. Managing online information 5. Big Picture (Healthy lifestyle)	**Digital Literacy** 1. Locating, creating and saving 2. Using effects to engage an audience 3. Editing and improving for impact 4. Searching for information digitally 5. Creating digital files 6. Drawing conclusions for presenting	**Computer Science (Coding)** 1. Coding sequences to create algorithms 2. Using a 'wait' function 3. Using an 'event' function 4. Incorporating pixel measurements 5. Creating images
Year 6	**Online Safety** 1. Self-image & identity 2. Online Relationships 3. Online reputation and online bullying 4. Managing online information 5. Big Picture (Healthy lifestyle)	**Digital Literacy** 1. Locating, creating and saving 2. Using effects to engage an audience 3. Editing and improving for impact 4. Searching for information digitally 5. Creating digital files 6. Drawing conclusions for presenting	**Computer Science (Coding)** 1. Coding sequences to create algorithms 2. Using conditionals for actions 3. Combining 'if' command with conditionals 4. Using 'if' or 'else' statements 5. Using 'while' and 'until' loops 6. Creating a game