

Roundwood Park School Curriculum Map – COMPUTER SCIENCE (Y8)

*A curriculum that stimulates curiosity, values diversity and offers challenge.
We help every student to love learning for life, to follow their passions and to reach their full potential.*

Year 8	Autumn Term 1	Autumn Term 2	Spring Term	Spring Term 2	Summer Term 1	Summer Term 2
Unit of Work	Data	Computational Thinking (Programming in Python)	Computational Thinking (Programming in Python)	Computers in Society (The Digital Divide)	Computers in Society (The Digital Divide)	iDEA
Key Knowledge Or Enquiry Question	<ul style="list-style-type: none"> binary maths and conversions ASCII codes Images and calculating file sizes Sorting/Searching Algorithms 	<ul style="list-style-type: none"> Escape Room Input and output statements Selection (if...else) statements 	<ul style="list-style-type: none"> Further selection (if...elif...else) statements Condition controlled loops Count controlled loops 	<ul style="list-style-type: none"> The Digital Divide Cyber bullying and social media netiquette Careers The environment and e-waste 	<ul style="list-style-type: none"> Media influence Fake news Legislation & GDPR Artificial Intelligence 	<ul style="list-style-type: none"> Safe online Money management Social Media Ethics E-Safety Fake News Problem Solving
Concepts	Understanding how data is understood, represented and sorted by a computer, particularly letters and images	Ability to program the computer to solve problems	Ability to program the computer to solve problems	Understanding the rights and responsibilities of a digital user	Understanding the rights and responsibilities of a digital user	Students complete badges to earn the silver Inspiring Digital Enterprise Award
Key Vocabulary	Data – binary, denary, hexadecimal, ASCII, binary addition, binary shifts, bitmap, colour depth, resolution, sort, search, algorithm ; Programming commands ; CiS – Digital Divide, Social, Economic, Educational, Cyber bullying, E-waste, Social Media, Fake News, Computer Misuse Act, GDPR, AI					
ASPIRE Habits	Resourceful	Resilient	Resilient	Resourceful	Resourceful	Responsible
Reading Opportunities		Chan – Learn Python in one day and learn it well	Chan – Learn Python in one day and learn it well	Everything You Need to Ace Computer Science and Coding in one big fat notebook	Everything You Need to Ace Computer Science and Coding in one big fat notebook	