

COMPUTING PROGRESSION AT SPROATLEY ENDOWED CE PRIMARY ACADEMY

Intent	 Through our Christian Values - Friendship, Compassion, Trust and Respect: We Encourage, Build & Hope together...no one left behind. Based on 1 Thessalonians 5-11  Recognising the crucial role of technology in Humberside's local industry and the global landscape, we are committed to providing Sproatley children with a high-quality computing education. This is essential for them to achieve their full potential and develop into responsible digital citizens with a broad understanding of their place within both their local and the wider global community. Following the 2014 National Curriculum, our computing lessons are structured around three core areas: digital literacy, information technology, and control systems. The objectives within each area are designed to build learning progressively across key stages, establishing a strong foundation for future academic pursuits and beyond. Computing offers numerous learning opportunities and transferable skills, both directly within computing lessons and integrated across the wider curriculum	SPROATLEY CURRICULUM 
Implementation	To create engaging and motivating learning experiences, teachers actively integrate computing into their lessons. We implement the curriculum to ensure a balanced development of computer science, information technology, and digital literacy. Students encounter all three areas annually, with regular opportunities for revisiting and consolidating prior learning. Systematic progression is ensured through carefully mapped knowledge and skills across all topics and year groups. Students have access to Chromebooks and other technology devices throughout the school, providing opportunities to utilise diverse devices and software for various purposes across the curriculum, in addition to specific computing lessons. Our units of work are thoughtfully sequenced to build upon existing knowledge and concepts, fostering digital literacy, online safety awareness, and a growing understanding of computer science. Recognising both the benefits and risks of ICT, e-safety is a regular topic in termly worships.	

Impact	Pupils will develop into assured and proficient users of technology, capable of employing it to fulfill a broad spectrum of objectives within both domestic and academic contexts. They will acquire a secure and comprehensive understanding of the ramifications of technology and digital systems, an essential attribute in a society undergoing rapid technological evolution. Furthermore, pupils will be able to apply the fundamental British values of democracy, tolerance, mutual respect, the rule of law, and liberty when interacting with digital platforms
---------------	--

Ebor Computing Progression of Knowledge - Strand Progression based on the national curriculum, Ofsted research reviews and Aide Memoires																
EYFS																
- Explore digital devices including ipads, chromebooks and cameras - Pre-coding - following directions and mazes - Use push button toys and 'cause and effect' resources - Begin to have discussions around 'screen time' - Use technology in school to help us - e.g. googling animals we find																
Control Systems																
Year 12 A			Year 12 B			Year 3 4 A			Year 3 4 B			Year 5 6 A			Year 5 6 B	
Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge
Understand what algorithms are (& how they are implemented as programs on a digital device)	Write a simple program (including unplugged/ plugged)		Understand how we can use logical reasoning to predict the behaviour of a simple program.	Use logical reasoning to predict the behaviour of a simple program		Understand how programs can run using various forms of input and output (e.g. Bee bots/ micro bits).	Use various forms of input and output.		Understand how to break programs down into smaller parts (decomposition) and why that is useful.	Use decomposition (breaking things down) to solve problems linked to programs.		Understand how sequencing can be used within programs.	Use sequencing effectively within programs.		Understand how variables can impact programs.	Use variables purposefully within programs to achieve specific goals.
Understand that programs need precise instructions.	Write a simple program (which follows precise instructions)		Understand what debugging is and how it affects how a program runs.	Identify and debug a simple program.		Understand how programs are used to control everyday devices. (e.g. toys, drones, traffic lights etc.)	Create a program which can control/replicate everyday/real world devices. (e.g. toy/traffic lights).		Understand how to detect and correct errors in algorithms and programs (for various purposes).	Use logical reasoning to detect and correct errors in algorithms and programs (for various purposes).		Understand how repetition (loops) can be used within programs.	Use repetition (loops) effectively within programs.		Understand how selection can impact a program.	Use selection purposefully within programs.
Crib Sheet			Crib Sheet			Crib Sheet			Crib Sheet			Crib Sheet			Crib Sheet	
Project Ideas			Project Ideas			Project Ideas			Project Ideas			Project Ideas			Project Ideas	
Vocabulary																
Algorithms, programmes, move, precise instructions.			(As before +) Logical, reasoning, predict, debug,			(As before +) Create, specific, goals, sequence, input and output.			(As before +) decompose, control, design, write, detect, correct			(As before +) Combine, repetition, sequence			(As before +) Combine, selection, variables, purpose, impact	
Information Technology																
Year 12 A			Year 12 B			Year 3 4 A			Year 3 4 B			Year 5 6 A			Year 5 6 B	
Substantive Knowledge	Corresponding skill		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge

Understand how information technology beyond school can help us.	Recognise common uses of information technology beyond school (in the real world).		Understand how information technology is used within school to help us.	Recognise common uses of information technology within school.		Understand how software can be used to collect and present data.	Select, use and combine a variety of softwares to accomplish given goals (collecting and presenting data/informatio n)		Understand how the internet and the world wide web can provide opportunities for collaboration and communication.	Collaborate and communicate effectively for a specific purpose.		Understand how software can be used to analyse and evaluate data.	Select, use and combine a variety of softwares to accomplish given goals (analyse and evaluate data/information)		Understand the difference between the internet and the world wide web and what they do.	Identify the parts within the schools computer network (eg. servers, router, ports)
Understand how and why digital content can be changed.	Use technology purposefully to change pre-made digital content.		Understand how we can use technology to create, organise, store and retrieve digital content.	Use technology purposefully to create, organise, store and retrieve digital content.		Understand how to use search technologies effectively.	Use search technologies effectively.		To appreciate how results are selected and ranked using search technologies.	Use filters to find specific information.		To understand how we can evaluate digital content based on reliability and authenticity.	Evaluate digital content.		To understand what databases are and how they are used to store information.	Select, use and combine a variety of software to create a database for a specific goal.
Crib Sheet			Crib Sheet			Crib Sheet			Crib Sheet			Crib Sheet			Crib Sheet	
Project Ideas			Project Ideas			Project Ideas			Project Ideas			Project Ideas			Project Ideas	
Vocabulary																
Information technology, Computer, laptop, chromebook, tablet, mouse, touchpad, keyboard, website, click, scroll, type, enter, digital Names of devices in the wider world - fridge, TV, tills, cashpoint etc.			(As before +) Organise, create, store, retrieve. Names of devices within school - printer, interactive whiteboard etc.			(As before +) Collect, present, select, combine, software, data, internet, search, search engine			(As before +) world wide web, collaborate, communicate, results, rank, filters, specific			(As before +) analyse, evaluate, digital content, reliability, authenticity			(As before +) compare, computer network, router, server, databases, storage, The Cloud	
Digital Literacy																
Year 12 A			Year 12 B			Year 3 4 A			Year 3 4 B			Year 5 6 A			Year 5 6 B	
Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Substantive Knowledge	Disciplinary Knowledge		Knowledge	Disciplinary Knowledge
Understand why we should keep personal information private.	Keep personal information private.		Understand what usernames and passwords are and why they are important.	Use usernames and passwords safely.		Understand how to use safely, respectfully and responsibly.	Demonstrate an ability to use technology safely, respectfully and responsibility.		Understand what is acceptable and unacceptable behaviour online.	Recognise acceptable and unacceptable behaviours online and act accordingly.		Understand what a digital footprint is and how it can impact your life.	Identify positive and negative digital footprints.		Understand what plagiarism and copyright means and its impact.	Find and use copyright free online content.
Understand what is inappropriate online content and know to report it to a	Recognise inappropriate online content.		Understand we can respond to inappropriate online content in different	Respond appropriately to inappropriate online content.		Understand that there are a range of ways to report concerns online about content and	Identify and report concerns appropriately about online content and contact.		Understand what scams, spams and hackers are and the corresponding dangers.	Recognise if a/my device has been scammed, spammed or hacked.		Understand that algorithms are used to track online activity in order to influence us (e.g. cookies =	Act on personal judgement to determine whether to allow/deny cookie usage.		Understand that we are all digital citizens and how we can impact and influence the wider world.	Be a responsible digital citizen (including social media usage).

trusted adult.			ways.			contact.					advertising).			
Crib Sheet			Crib Sheet			Crib Sheet			Crib Sheet		Crib Sheet			Crib Sheet
Project Ideas			Project Ideas			Project Ideas			Project Ideas		Project Ideas			Project Ideas
Vocabulary														
Private, personal, information, inappropriate, report, trusted			(As Before +) username, password, respond, safely			(As Before +) respect, responsible, report, contact, stranger			(As Before +) Acceptable / unacceptable, scam, hackers, danger,		(As Before +) digital footprint, traceable, impact, track, online activity, cookies, advertisement, virus			(As Before +) plagiarism, copyright, free, digital citizen, influence, social media