Subject Curriculum Overview
Computing Overview

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can 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
- are responsible, competent, confident and creative users of information and communication technology.

		AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Year 1	Digital Literacy – Safer Citizens 6 x 1hr		**Information Technology** Technology Around Us (NCCE Unit) Use technology with purpose to use, create, sort and retrieve digital content Develop skills to enable them to open apps (e.g. Numbots) and sign in.	**Computer Science 1** Intro to Programming Using Bee Bots/ Intro to Programming/ Tynker Jr/ Coding Safari and create instructions (unplugged) **Key Focus:** Logic **Key Approach:** Tinkering			**Computer Science 2** Algorithms Daisy Dinosaur, Scratch Jr **Key Focus:** Algorithms **Key Approach:** Debugging **Work with Y6?**
		Using Computers Safely x 2 lessons		Using Computers Safely x 2 lessons		Using Computers Safely x 2 lessons	
Year 2	Digital Literacy – Safer Citizens 6 x 1hr	**Computer Science 1** Sequencing Sequencing (Tynker) Scratch Jr (Moving On) predict event sequences **Key Focus:** Algorithms **Key Approach:** Tinkering		**Information Technology** Desktop Publishing Creating Media - Poster (Publisher/ Pages) about Titanic's maiden voyage: *Organise,* manipulate and publish *digital content* inc images.		**Computer Science 2** Loops and Debugging Blue Bots, Loops and Debugging (Tynker) **Key Focus:** Logic **Key Approach:** Debugging	
		Be Internet Legends - Be Internet Sharp- Think Before You Share - Activity 1 and 4		Be Internet Legends - Be Internet Secure - Protect your Stuff - Activity 1 and 2		Be Internet Legends - Be Internet Secure - Protect your Stuff - Activity 3	
Year 3	Digital Literacy – Safer Citizens 6 x 1hr	**Information Technology** Presentations and Publishing (NCCE Hybrid) Create Keynote (or PP) on canals focusing on slide aesthetics and transitions. Use a variety of software to: accomplish given goals; collect information; design and create content and present information		**Computer Science 1** Events, Actions and IF Statements Block Based Coding with Crumble (link to DT Unit) Work with input and output **Key Focus:** Decomposition **Key Approach:** Collaboration			**Computer Science 2** Debugging and Revisiting Algorithms Scratch Jr to Scratch 3.0 Write programs that accomplish specific goals Use sequence in programs *Control or simulate systems* - ***Sphero Link?*** **Key Focus:** Evaluation **Key Approach:** Persevering
		Be Internet Legends - Be Internet Sharp - Think Before you Share - Activity 5 Be Internet Legends - Be Internet Secure - Protect your Stuff - Activity 4		Be Internet Legends - Be Internet Kind - Respect Each Other - Activity 1 and 2		Be Internet Legends - Be Internet Kind - Respect Each Other - Activity 4 and 5	
Year 4	Digital Literacy – Safer Citizens 6 x 1hr		**Information Technology** App Creation using data and conditional formatting Data Handling – Numbers/ Excel: *Collect, analyse, evaluate and present data.* *Use conditional formatting and drop-down menus to create an interactive, learning app.*	**Computer Science 1** Patterns Selection and Sequence Design a maze game: Design, create and debug Use repetition in programs Use logical reasoning to detect and correct errors **Key Focus:** Patterns **Key Approach:** Collaboration		**Computer Science 2** Loops, Composition, Decomposition and Abstraction Apply knowledge to Tynker Challenges/ Sphero tasks. **Key Focus:** Evaluation **Key Approach:** Persevering	
		Be Internet Legends - Be Internet Sharp - Think Before you Share - Activity 2 and 3		Be Internet Legends - Be Internet Alert - Check it's For Real- Activity 1 and 2			
Year 5	Digital Literacy – Safer Citizens 10 x 1hr		**Computer Science 1** Statements and Further Loops Tynker Work with variables Use logical reasoning to explain how some simple algorithms work Use logical reasoning to detect and correct errors in algorithms **Key Focus:** Review of 7 **Key Approach:** Perseverance	**Computer Science 2** Swift Playgrounds (1) Introduction to Swift Playgrounds Learn to Code 1 Commands, Functions and For Loops **Key Focus:** Decomposition **Key Approach:** Creating		**Digital Literacy** Sharing Information How networks and the internet work, IP Addresses and collaboration online. Link to collaborative, cross curricular project - TBC	
		Be Internet Legends - Be Internet Sharp- Think Before You Share -Any Units - Age 9-11 Plans		Be Internet Legends - Be Internet Secure- Protect your Stuff - Any Units - Age 9-11 Plans		Be Internet Legends - Be Internet Brave- When in Doubt, Discuss - Age 9-11 Plans	
Year 6	Digital Literacy – Safer Citizens 10 x 1hr	**Computer Science** Swift Playgrounds (2) Swift Playgrounds (Moving on and Challenges) **Key Focus:** Abstraction **Key Approach:** Perseverance			**Digital Literacy** iMovie (NCCE Unit) Film making (iMovie): Combine a variety of software to accomplish given goals Select, use and combine software on a range of digital devices Be discerning in evaluating digital content		**Computer Science** TBC Extending with Swift Challenges Plan and teach 1-to-1 lessons to Y1 -Algorithms **Key Focus:** Review of 7 **Key Approach:** Creating
		Be Internet Legends - Be Internet Alert- Check it's For Real -Any Units - Age 9-11 Plans		Be Internet Legends - Be Internet Kind- Respect Each Other - Any Units - Age 9-11 Plans		Be Internet Legends - Be Internet Brave- When in Doubt, Discuss - Age 9-11 Plans	