Develop:
Abstraction
Computational Thinking
Data structures
Security and safety
Independence

Sandbach School Computing

Bridging Year Computer Science Curriculum Sequence

Intent: to provide a grounding in the digital skills that are a pre-requisite to success in professional IT careers including computational thinking, practical investigation and system safety.

T1	T2	T3	T4	T5	T6
Components of a PC (Group 1)	Python Basics (Group 1)	Components of a PC (Group 2)	Python Basics (Group 2)	HTML and CSS	Cyber security
Why these topics? Understanding the main components of a PC is fundamental to understanding digital technology.	**Why This Topic?** Learning computational thinking skills with programming is fundamental to understanding the career opportunities that IT offers.	**Why these topics?** Understanding the main components of a PC is fundamental to understanding digital technology.	**Why This Topic?** Learning computational thinking skills with programming is fundamental to understanding the career opportunities that IT offers.	**Why This Topic?** Learning HTML and CSS opens up the world of web programming to students. It acts as an easy-entry to text-based programming, building confidence and the skills of debugging.	**Why This Topic?** This unit focusses on the fundamentals of cyber security. Learning about how to stay safe with IT is a national curriculum objective and forms a major part of PSHCE study as well.
Curriculum Links • Technical • Hardware	**Curriculum Links** • Code • Algorithms • Abstraction	**Curriculum Links** • Technical • Hardware	**Curriculum Links** • Code • Algorithms • Abstraction	**Curriculum Links** • Code • Online • Creativity	**Curriculum Links** • Independence • Creativity
Teaching these topics here supports: Pupils understanding of the hardware used in digital technology that surrounds them in all walks of life.	**Teaching these topics here supports:** Programming and computational skills useful in a wide range of career pathways and future careers as yet not created..	**Teaching these topics here supports:** Pupils understanding of the hardware used in digital technology that surrounds them in all walks of life.	**Teaching these topics here supports:** Programming and computational skills useful in a wide range of career pathways and future careers as yet not created..	**Teaching these topics here supports:** Confidence with code. Wider experiences suitable for career entry points in the wider world.	**Teaching these topics here supports:** Behaviour and safety when using digital technologies. Wider understanding of threats and issues facing companies and organisations.
These topics feed from: Building from hardware and software unit in year 8.	**These topics feed from** Building from Python unit in year 8.	**These topics feed from:** Building from hardware and software unit in year 8.	**These topics feed from** Building from Python unit in year 8.	**These topics feed from** Builds from the website unit in Year 7, adding CSS functionality.	**These topics feed from** Threats and security unit in year 8, e-safety unit in year 7.