Introduce:
Safety and Respect
Computational Thinking
Abstraction
Creativity

Sandbach School Computing Curriculum – Transition and Induction:

Transition and Induction Computing Curriculum Sequence

<u>Intent</u>: To equip all learners with the necessary building blocks to begin the computing pathways. Using technology safely and responsibly is core and pupils take their first steps in computational thinking, logic and data handling.

T1	T2	T3	T4	T5	T6
Acceptable Use Digital Dangers	One Page Website	Programming with Scratch	Logic and binary.	Spreadsheet Modelling	Open ended project

Why these topics?	Why This Topic?	Why This Topic?	Why This Topic?	Why This Topic?	Why This Topic?
Acceptable Use aims to set a level playing field and allows all pupils to be familiar with the rules and regulations they will be working under in the school plus it will teach them the intricacies of the network in the school. This will allow the boys to access digital learning in all future computer lessons but also for learning across a wider curriculum. e-Safety topics are a vital component of any computing curriculum and raising awareness of all risks associated with technology is a priority of the department.	This is a chance for learners to combine creative IT skills with skills that form the fundamentals of computer science. The unit is a cross-curricular effort with the history department and will revisit the learning on local history and create a digital slant whilst reinforcing the key concepts.	Focus groups have yielded that Scratch is widely taught in primary schools. It has been found, however, that often the key computational thinking skills have not been implicitly taught so this unit starts pupils on the journey to professional programming.	This is directly from the National Curriculum and skill builds towards GCSE Computer Science which is offered at Key Stage 4.	This links to the National Curriculum objective relating to abstraction and investigating real-world problems. Using spreadsheets is also a fundamental skill for business use of IT and isn't addressed anywhere else in a student's life journey through IT education in schools. Spreadsheets are revisited in maths for some pupils so this will help to skill build towards that outcome.	Growing learners so that they move towards independence is a key objective in the department's teaching. This project allows pupils to reflect on previous learning, practice and synthesise skills and produce a response that is unique and authentic.

Curriculum Links	Curriculum Links	Curriculum Links	Curriculum Links	Curriculum Links	Curriculum Links
• Responsibility • Community • Safety • Rules • Rights	• Community • Historical • Code • Graphic Design • Online	• Abstraction • Algorithms • Code • Logic • Technical	• Logic • Representation • Number/Calculation • Technical • Problem solving	• Abstraction • Code • Business • Technical • Solutions	• Independence • Creativity

Teaching these topics here supports:	Teaching these topics here supports:	Teaching these topics here supports:	Teaching these topics here supports:	Teaching these topics here supports:	Teaching these topics here supports:
Behaviour and safety in an ICT room, the rules of using computers, respect for equipment. eSafety topics that will be revisited throughout each pupil's school life in PSHCE and further on in the computing curriculum.	Learners have their first opportunity to "code" something with HTML. This supports the learning of real programming languages later. Reflecting on local history and local life helps to ground pupils within their communities.	Programming structures: sequence, selection, iteration and modularity	Understanding how and why computers use binary. Computational thinking.	Creating abstract models. Real world problem solving skills.	Self reflection of learning, review of learning, providing a pathway towards independence.

These topics feed from:	These topics feed from	These topics feed from	These topics feed from	These topics feed from	These topics feed from
E-safety topics taught in primary school.	**This is likely each pupil's first attempt at using text code.**	Instruction sequencing in Scratch taught in primary school.	This is likely to be the pupil's first attempt at logic and binary. Builds on basic maths taught in KS1 and 2.	Pupils will not have studied spreadsheets before. They will use maths skills learned in KS1 and 2	The units studied in computing so far this year