Developing:
Safety and Respect
Computational Thinking
Abstraction
Creativity

Sandbach School Computing Curriculum:

Year 8 Computing Curriculum Sequence

Intent: To deliver outstanding outcomes by equipping all boys with the building blocks needed to create new digital technologies (learning in algorithms and programming), and the skills to use existing digital technologies creatively and adaptively (skills in graphics and animation). There will be an opportunity for all learners to find a pathway of continued study in computer science and/or creative IT.

T1	T2	T3	T4	T5	T6
Image manipulation / bitmap graphics	Algorithmic thinking, flowcharts, logical decision making	Procedural programming techniques using a textual language	Cyber security for organisations, threats and mitigations, web development in HTML and CSS	Hardware and software interactive product	Animation skills Physical computing using MicroBits
Why this topic? This is a key skill required for the Creative iMedia course. Furthermore, skills with graphic manipulation are useful in all manner of IT careers even including technical paths such as software developer. The skills taught are also necessary for GCSE Art and Art Graphics	**Why This Topic?** These fundamentals are building towards the GCSE in Computer Science and many IT professional career pathways.	**Why This Topic?** These fundamentals are building towards the GCSE in Computer Science and many IT professional career pathways.	**Why This Topic?** This unit forms part of the response to a need for awareness of safety concerns involving IT. This unit focusses on more technical content than the Year 7 unit and aims to address concerns that IT professionals might encounter. It is also directly linked to the unit of the same name in GCSE Computer Science.	**Why This Topic?** This is an important unit that builds towards both GCSE Computer Science and Creative iMedia.	**Why This Topic?** Animation is a key skill needed for Creative iMedia. Physical computing allows learners to make connections between logical thinking and the real world by seeing their abstract learning brought to life
Curriculum Links • **Graphic Design** • **Creativity** • **Colour/Colouring** • **Technical** • **Business**	**Curriculum Links** • **Abstraction** • **Algorithms** • **Code** • **Logic** • **Technical**	**Curriculum Links** • **Abstraction** • **Algorithms** • **Code** • **Logic** • **Technical**	**Curriculum Links** • **Safety** • **Security** • **Creativity** • **Technical** • **Graphic Design**	**Curriculum Links** • **Business** • **Online** • **Technical** • **Real World** • **The Economy**	**Curriculum Links** • **Colour/Colouring** • **Creativity** • **Entertainment** • **Graphic Design** • **Genre**
Teaching these topics here supports: Pre-production skills Graphic design Creativity	**Teaching these topics here supports:** Computational thinking. Programming skills, used in the Computer Science route	**Teaching these topics here supports**: Computational thinking. Programming skills, used in the Computer Science route	**Teaching these topics here supports**: Learning of e-safety Topic of the same name in the GCSE Computer Science course.	**Teaching these topics here supports**: Discussing hardware and software will form part of the examined component of both GCSE Computer Science and Creative iMedia and is revisited in Bridging years and Qualifications Phase.	**Teaching these topics here supports**: Pre-production skills Graphic design Creativity
These topics feed from: Graphics skills taught in the Digital Dangers unit	**These topics feed from** Programming skills gained from Scratch	**These topics feed from** Abstraction and computational thinking from the last unit	**These topics feed from** E-Safety knowledge from the Digital Dangers unit	**These topics feed from** This is the first time these skills have been explicitly taught but pupils will have learned through implicit teaching	**These topics feed from** Graphics skills taught in the Digital Dangers unit, combining skills in Art