## Developing: Safety and Respect

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.

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Image managestation / bitmage graphics       Algorithmic thinking, flowcharts, logical decision making       Procedural programming techniques       Cyber security for organisation, threads and mitpations, web       Hardware and software interactive interactine interactive i		<u>T1</u>	<u>T2</u>	<u>T3</u>	T4	<u>T5</u>	<u>T6</u>
Why this topic?         These fundamentals are building towards the fundamentals are building towards the construction and many if portessional career pathways.       Why This Topic?       Why This Topic?       Why This Topic?       Why This Topic?         These fundamentals are building towards the construction and many if portessional career pathways.       Why This Topic?       Why This Topic?       Why This Topic?         The acting towards even including towards the control drop to the source and many if portessional career pathways.       Why This Topic?       Why This Topic?       Why This Topic?         The set fundamental and the source and many if portessional career pathways.       Controlution to the same many in OCSE Computer Science.       Why This Topic?       Why This Topic?         Curriculum Links       Curriculum Links       Controlution to the same many in OCSE Computer Science.       Curriculum Links       Controlution Links       Controlution Links       Code       Science       Scie		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
Curriculum LinksCurriculum LinksCurriculum LinksCurriculum LinksCurriculum LinksCurriculum LinksCurriculum LinksColour/Colouring• Creativity• Abstraction• Abstraction• Abstraction• Abstraction• Abstraction• Abstraction• Abstraction• Abstraction• Colour/Colouring• Co	Why this to This is a course. F manipula careers a software The skills and Art (	topic? Key skill required for the Creative iMedia Furthermore, skills with graphic ation are useful in all manner of IT even including technical paths such as e developer. s taught are also necessary for GCSE 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
Teaching these topics here supports: Pre-production skills Graphic design CreativityTeaching these topics here supports: Science routeTeaching these topics here supports: Supports: Computational thinking. Programming skills, used in the Computer Science routeTeaching these topics here supports: Computational thinking. Programming skills, used in the Computer Science routeTeaching these topics here supports: Computational thinking. Programming skills, used in the Computer Science routeTeaching 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: Discussing hardware and software will form CreativityTeaching 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: Discussing hardware and software will form CreativityTeaching these topics here supports: Discussing hardware and Software will form CreativityTeaching these topics here supports: Discussing hardware and Software will form CreativityTeaching these topics here supports: Discussing hardware and Software will form CreativityTeaching these topics here supports: Discussing hardware and Software will form CreativityTeaching these topics here supports: Discussing hardware and Software will form CreativityThese topics feed from: Grap	Curricul • Gra • Cre • Colo • Tec • Bus	lum Links aphic Design ativity our/Colouring chnical siness	Curriculum Links <ul> <li>Abstraction</li> <li>Algorithms</li> <li>Code</li> <li>Logic</li> <li>Technical</li> </ul>	Curriculum Links <ul> <li>Abstraction</li> <li>Algorithms</li> <li>Code</li> <li>Logic</li> <li>Technical</li> </ul>	Curriculum Links <ul> <li>Safety</li> <li>Security</li> <li>Creativity</li> <li>Technical</li> <li>Graphic Design</li> </ul>	Curriculum Links <ul> <li>Business</li> <li>Online</li> <li>Technical</li> <li>Real World</li> <li>The Economy</li> </ul>	Curriculum Links • Colour/Colouring • Creativity • Entertainment • Graphic Design • Genre
These topics feed from:       These topics feed from         Graphics skills taught in the Digital Dangers unit       Programming skills gained from Scratch       These topics feed from       These topics feed from       These topics feed from       These topics feed from         Unit       Digital Dangers       Unit       Digital Dangers       Unit       Digital Dangers       These topics feed from       These topics feed from       Graphics skills taught in the Digital Dangers       Unit       Digital Dangers       Digital Dang	<b>Teaching</b> Pre-prod Graphic o Creativit	<b>g these topics here supports</b> : luction skills design γ	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 to Graphics	ppics feed from: 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

