

IT/Computing

Curriculum Overview

All children are entitled to a curriculum and to the powerful knowledge which will open doors and maximise their life chances. Below is a high-level overview of the critical knowledge children will learn in this particular subject, at each key stage from Year 7 to Year 11, in order to equip students with the cultural capital they need to succeed in life. The curriculum is planned vertically and horizontally giving thought to the optimum knowledge sequence for building secure schema.

	Knowledge, skills and understanding to be gained at each stage*		
	Cycle 1	Cycle 2	Cycle 3
YEAR 7	E-Safety: Staying Safe Online, Cyberbullying & Cyber Crime, Social Networking, Spam & Viruses, Using school email.	Computer Systems: Hardware, Input & Output, Storage, Computer Components, Software, Binary Basic, Numbers, Binary Letters, Networks.	Spreadsheets: Basics, Formulae, Functions, Graphs, Scratch: Basics, Loops, Backgrounds & Costumes, Sprites & Colour, Coordinates, Variables
YEAR 8	HTML: Basics, Tags, Web Page, Images, Animated Gifs	Python Turtle: Introduction, Pen Properties, Maze, Loops, Variables,	Databases: Tables, Forms, Queries, Reports Small Basic: Commands, Variables, If Statements.
YEAR 9	Component 1: Learning Aim: A - Investigate user interface design for individuals and organisations	Component 1: Learning Aim: B - Use project planning techniques to plan and design a user interface	Component 1: Learning Aim: C - Develop and review a user interface
YEAR 10	Component 2: Learning Aim: A - Investigate the role and impact of using data on individuals and organisations.	Component 2: Learning Aim: B- Create a dashboard using data manipulation tools.	Component 2: Learning Aim: C- Draw conclusions and review data presentation methods.
YEAR 11	Component 3: Learning Aim: A & B- Modern-Technologies, Cyber-security.	Component 3: Learning Aim: C- Wider implications-of-digital-systems.	Component 3: Learning Aim: D- Planning-and-communication.

*A powerful, knowledge-rich curriculum teaches both declarative knowledge (facts; knowing that something is the case; what we think about) and non-declarative or procedural knowledge (skills and processes; knowing how to do something; what we think with). There are no skills without bodies of knowledge to underpin them.

In some subjects, a further distinction can be made between substantive knowledge (the domain specific knowledge accrued e.g. knowledge of the past) and disciplinary knowledge (how the knowledge is accrued e.g. historical reasoning).

Please refer to the DAT Curriculum Principles, published on our website, for further information about how we have designed our all-through curriculum.

