

# Year 10 IT Tech Award Long Term Plan



“Computers are incredibly fast, accurate, and stupid; humans are incredibly slow, inaccurate and brilliant; together they are powerful beyond imagination.” Albert Einstein

## Year 10 Intent / End Point:

Year 10 students develop their knowledge and understanding of different hardware and software applications and the tools and techniques used to select, store, manipulate and present data. They also explore the various risks associated with the collection, storage and use of data, including legal, moral, ethical and security issues, and how such risks can be mitigated.

	<u>HT1</u>	<u>HT2</u>	<u>HT3</u>	<u>HT4</u>	<u>HT5</u>	<u>HT6</u>	
<u>Unit title</u>	Learning Outcome 1	Spreadsheet and database skills	Learning Outcome 3	Learning Outcome 4	Learning Outcome 6	Coursework preparation	
Principles that underpin the curriculum	<b>Topics</b>	<ul style="list-style-type: none"> <li>Project Life-Cycle</li> <li>Inputs, outputs</li> <li>Planning tools</li> </ul>	<ul style="list-style-type: none"> <li>Formulas and functions</li> <li>Charts</li> <li>Relational databases</li> <li>Forms</li> <li>Queries and reports</li> <li>Importing and exporting</li> </ul>	<ul style="list-style-type: none"> <li>Data and information</li> <li>Collecting data</li> <li>Storage methods</li> <li>Big data and analysis</li> </ul>	<ul style="list-style-type: none"> <li>Computer threats and vulnerabilities</li> <li>Prevention methods</li> <li>IT Legislation</li> <li>Validity, bias, reliability of sources</li> </ul>	<ul style="list-style-type: none"> <li>Software tools and techniques to process data and present information</li> <li>Computer resources</li> </ul>	<ul style="list-style-type: none"> <li>Success criteria identification</li> <li>Reviewing</li> <li>Problem solving</li> <li>Software selection</li> </ul>
	<b>Key terms</b>	Critical path, concurrent, dependent, contingency, iteration, interaction	Function, field, range, query, filter, record, relational, integrated, validation, verification	Context, quantitative, qualitative, analysis,	Permissions, mitigation, encryption, malware, copyright, GDPR	Embedding, audience, purpose, technique, relevance, transition, animation	Brief, criteria, requirements, objectives, workflow
	<b>Progression</b>	Students will sit their examination at the end of Year 10. This will be attempt 1. If they need to resit, this is completed in the Summer of Year 11. Coursework commences at the end of Year 10 and continues into Year 11. (This is due to change from Sept 2022.)					
	<b>Middle Stake Testing</b> (Purposeful practice)	Short tests on sub topics in LO1	Skills checks	Short tests on sub topics in LO3	Short tests on sub topics in LO4	Short tests on LO6	
	<b>High Stake Testing</b>		Assessment 1 on LO 1			Assessment 3 Full mock paper	
	<b>Skills development</b>	This year, students will learn what different technologies can be used, why you should use them and how to make best use of them, to gather, store, manipulate and present data; this is known as data management. Students will learn about tools and techniques for use in different digital hardware and software technologies, and how these can be integrated to create digital solutions to manage and communicate data and information.					



# Year 11 IT Tech Award Long Term Plan (Computing)

“Computers are incredibly fast, accurate, and stupid; humans are incredibly slow, inaccurate and brilliant; together they are powerful beyond imagination.” Albert Einstein

## Year 11 Intent / End Point:

Year 11 students develop their knowledge and understanding of different hardware and software applications and the tools and techniques used to select, store, manipulate and present data. They also explore the various risks associated with the collection, storage and use of data, including legal, moral, ethical and security issues, and how such risks can be mitigated.

	<u>HT1</u>	<u>HT2</u>	<u>HT3</u>	<u>HT4</u>	<u>HT5</u>	<u>HT6</u>
<u>Unit title</u>	RO13 Coursework		RO12 Revision for resit			
<b>Principles that underpin the curriculum</b>	<b>Topics</b>	<ul style="list-style-type: none"> <li>Initiation and planning phase LO2</li> <li>Data Manipulation LO5</li> <li>Information presentation LO7</li> <li>Evaluation LO8</li> </ul>	LO1 - Project life cycle LO3 - Data and information LO4 - Threats to systems LO6 - Handling data and presenting information			
	<b>Key terms</b>	Initiation, user requirements, criteria, objective, mitigation, importing, manipulating, query, analysis, exporting, reviewing, embedding, audience, purpose	Critical path, concurrent, dependent, contingency, iteration, interaction, context, quantitative, qualitative, analysis, permissions, mitigation, encryption, malware, copyright, GDPR, embedding, audience, purpose, technique, relevance, transition, animation			
	<b>Progression</b>	The skills, knowledge and understanding you will develop through this qualification are very relevant to both work and further study. They will support you in a range of subject areas such as A Levels in Business or Geography, or Cambridge Technical in IT. They can also support your progression into employment through Apprenticeships in areas such as Digital Marketer or Business Administrator.				
	<b>Middle Stake Testing</b> (Strength and try now tasks)	Skills checks	Skills checks	LO1 mini test	LO3 mini test	LO4 mini test
<b>High Stake Testing</b>		Assessment 1 on Iterative reviews		Assessment 2 Mock paper	Assessment 3 Full mock paper	
<b>Skills development</b>	Students will learn to follow a project life cycle of initiation, planning, execution and evaluation to complete a data management task and use their skills, knowledge and understanding of technology to complete each of the phases of the project life cycle.					