

## Curriculum Overview

## ICT

Curriculum Intent Statement Department of Computing Ballakermeen High School

Curriculum vision: We believe that students should have access to an engaging and challenging Computing curriculum that is abundant in both cross-curricular skills and knowledge. This curriculum should inspire independence and curiosity, but also provide students with an adaptable set of skills, that equip them effectively for the demands of daily school life and future career opportunities.

Our ICT curriculum will provide students with the opportunity to:

- Understand and apply the fundamental principles and concepts computing, including logic, algorithms, and data representation
- Use a range of office-based software confidently, applying and adapting tools and techniques independently
- Analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve a given problem
- Develop and apply their analytic, problem-solving, design, and computational thinking skills
- Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to identify and report a range of concerns
- Understand the impact of emerging technology on society
- Be responsible, competent, confident, and creative users of information and communication technology

Curriculum Overview – ICT							
	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11		
AUTUMN 1	Introduction to Computing	YEAR 8 Hardware and Security	YEAR 9 IT systems at Ballakermeen (focus on digital citizenship)	<ul> <li>VEAR 10</li> <li>IGCSE ICT: <ol> <li>Basic spreadsheet skills (including introduction to graphs and charts)</li> <li>Document production</li> <li>Theory: input devices</li> </ol> </li> <li>SQA PC Passport: <ol> <li>Word skills</li> </ol> </li> <li>IGCSE Computer Science: <ol> <li>Data representation (number systems, text/ sound/images, data storage and compression)</li> </ol> </li> </ul>	<ul> <li>YEAR 11</li> <li>IGCSE ICT: <ol> <li>Further database skills</li> <li>Building advanced functions and graphs/charts</li> <li>Practical revision on document production</li> <li>Theory: Networks/ safety and security</li> </ol> </li> <li>SQA PC Passport: <ol> <li>Spreadsheet skills</li> </ol> </li> </ul>		
					<ol> <li>Automated technology (Al, automated systems)</li> <li>Boolean logic</li> </ol>		
AUTUMN 2	Images and Presentation design	Scratch: taking it further	Presenting information	<ol> <li>IGCSE ICT:</li> <li>Further spreadsheets and presentations</li> <li>Theory: output devices</li> <li>SQA PC Passport:</li> </ol>	<ol> <li>IGCSE ICT:</li> <li>Practical revision focusing on web authoring, document production, and advanced skills in spreadsheets</li> <li>Theory: System Life Cycle</li> </ol>		
				<ol> <li>Word coursework</li> <li>IGCSE Computer Science:         <ol> <li>Data transmission (types and methods, error detection, encryption)</li> </ol> </li> </ol>	SQA PC Passport: 1. Spreadsheet coursework IGCSE Computer Science: 1. Algorithm design and programming (data structures, iteration, selection, pseudocode, flowcharts)		

SPRING 1	Word	Spreadsheet	Word	IGCSE ICT:	IGCSE ICT:
	Processing &	skills	Processing &	1. Web authoring (HTML)	1. Practical revision all practical
	Spreadsheets:		Spreadsheets:	2. Further spreadsheets	areas – based on class needs
	Introduction		mapped to	3. Recapping word and	2. Focus on past papers and exam
			GCSE course	presentations	technique
			requirements	4. Theory: storage devices	3. Theory: revision and exam
					questions/technique
				SQA Passport:	
				I. Presentation skills	SQA PC Passport:
					I. Blogging skills
				IGCSE Computer Science:	
				I. Hardware (arcnitecture, I/O,	IGCSE Computer Science:
				storage, network hardware)	I. Algorithm design and
					programming (remainder – eg.
					procedures, functions, operations,
					testing and validation, trace
					tables)
SPRING 2	Introduction to	Introduction to	Introduction to	IGCSE ICT:	1. IGCSE ICT:
	Scratch (block	texted based	web authoring:	1. Web authoring (CSS)	Practical exams. Theory revision
	programming)	programming	mapped to	2. Further spreadsheets	, before written paper
		using Python	GCSE course	3. Recapping word and	
			requirements	presentations	SQA PC Passport:
				4. Theory: types and components	1. Blogging coursework
				SQA PC Passport:	IGCSE Computer Science:
				1. Presentation skills	1. Databases
					2. Revision before both written
				IGCSE Computer Science:	papers
				1. Software (types, interrupts,	
				languages, IDEs)	
SUMMER 1	Project:	Project:	Project:	IGCSE ICT:	
	integration of	integration of	integration of	1. Introducing databases	
	software –	software –	software –	2. Recapping previous practical skills	

	presentations	creating social	creating social	3. Theory: effects of using IT	
	and word documents	media reel using graphics software and media assets – based on online safety	media reel using graphics software and media assets – based on promoting a business	<ol> <li>SQA PC Passport: Presentation coursework</li> <li>IGCSE Computer Science:</li> <li>The internet and WWW (digital currency, internet, and WWW)</li> </ol>	
SUMMER 2	Active Learning tasks based around problem solving	Active Learning tasks based around problem- solving	Active Learning tasks based around problem- solving	<ol> <li>IGCSE ICT:</li> <li>Databases forms and queries</li> <li>Recapping previous practical skills</li> <li>Theory: applications of ICT and emerging technology</li> <li>SQA PC Passport:</li> <li>Spreadsheet skills and reviewing coursework</li> </ol>	
				<ul><li>IGCSE Computer Science:</li><li>1. The internet and WWW (cyber security and encryption)</li><li>2. Automated tech (robotics)</li></ul>	