



SALUS POPULI

OUR LADY'S KS3 COMPUTING CURRICULUM OVERVIEW



Year 7		Year 8		Year 9		
Unit	Content	Unit	Content	Unit	Content	
7.1 Impact of technology – Collaborating online respectfully	Lesson 1 Welcome to the computing lab	8.1 Modelling data – Spreadsheets	Lesson 1 Getting to know a spreadsheet	9.1 Graphic Design – part 1	Lesson 1 Introduction to Digital Graphics.	Term 1
	Lesson 2 Welcome to your workstation		Lesson 2 Quick calculations		Lesson 2 Graphic File Format and Properties	
	Lesson 3 Respectful online communication		Lesson 3 Collecting data		Lesson 3 Bitmap & Vector Graphics.	
	Lesson 4 Presenting to an audience part 1		Lesson 4 Become a data master!		Lesson 4 Digital graphic design and layout	
	Lesson 5 Presenting to an audience part 2		Lesson 5 Level up your data skills!		Lesson 5 Airbrushing BodyImage	
	Lesson 6 Who are you talking to? + Assessment		Lesson 6 Assessment		Lesson 6 Moodboards & Copyright	
CAT Test Contingency	Lesson 7 DIRT	Lesson 7 Mindmaps + Assessment				
7.2 Programming essentials in Scratch – part 1	Lesson 1 Introduction to programming and sequencing	8.2 Computer Control & Sequencing	Lesson 1 What is a Flowchart	9.1 Graphic Design – part 2	Lesson 8 Graphic Design: Introduction to Fireworks.	Term 1
	Lesson 2 Sequence and variables		Lesson 2 Sequencing		Lesson 9 Graphic Design: Introduction to Fireworks 2.	
	Lesson 3 Selection		Lesson 3 Sensors		Lesson 10 Graphic Design: Introduction to Fireworks 3.	
	Lesson 4 Operators		Lesson 4 Subroutines		Lesson 11 Graphic Design: Saturn Explorer Assessment.	
	Lesson 5 Count-controlled iteration		Lesson 5 Actuators		Lesson 12 Graphic Design: Saturn Explorer Assessment.	
	Lesson 6 Problem-solving		Lesson 6 Variables & Assessment		Lesson 13 Graphic Design: Saturn Explorer Assessment.	
Programming Essentials Assessment 1.	Lesson 7 DIRT	Lesson 14 Graphic Design Assessment 2				
7.2 Programming essentials in Scratch – part 2	Lesson 7 You've got the moves!	8.3 Python Turtle	Lesson 1: Python Turtle: Introduction	9.2 Python programming	Lesson 1 First steps	Term 2
	Lesson 8 Fly cat, fly!		Lesson 2: Python Turtle: Drawing Shapes		Lesson 2 Crunching numbers	
	Lesson 9 Loop de loop!		Lesson 3: Python Turtle: Fun with Shapes		Lesson 3 At a crossroads	
	Lesson 10 Treasure those lists!		Lesson 4: Python Turtle: Iteration		Lesson 4 More branches	
	Lesson 11 Translate this! Part 1		Lesson 5: Python Turtle: Procedures.		Lesson 5 Round and round	
	Lesson 12 Translate this! Part 2 + Assessment		Lesson 6 Assessment		Lesson 6 Putting it all together + Assessment	
7.3 The world of Cyber Security - part 1	Lesson 1 Introduction to Cyber Protection.	8.4 Cybersecurity	Lesson 1 You and your data	9.3 Physical Computing	Lesson 1 Hello physical world	
	Lesson 2 Email Scams.		Lesson 2 Social Engineering		Lesson 2 Bare bones	
	Lesson 3 Computer Malware.		Lesson 3 Script Kiddies		Lesson 3 Connections	
	Lesson 4 Hacking.		Lesson 4 Rise of the bots		Lesson 4 Dream it up	
	Lesson 5 Security		Lesson 5 There's no place like 127.0.0.1		Lesson 5 Build it up	
	Lesson 6 Cyber Protection Assessment 1.		Lesson 6 Under attack + Assessment		Lesson 6 Wrap it up + Assessment	
7.3 The world of Cyber Security - part 2	Lesson 7 Social Media T&Cs	8.5 Computer Networks	Lesson 1 Computer networks and protocols	9.4 Media Animations	Lesson 1 Move, rotate, scale, colour	Term 3
	Lesson 8 Sharing Images		Lesson 2 Networking hardware		Lesson 2 Animation, names, parenting	
	Lesson 9 Shopping Safely Online		Lesson 3 Wired and wireless networks		Lesson 3 Complex models and colours	
	Lesson 10 Intro to Copyright		Lesson 4 The Internet		Lesson 4 Organic modelling	
	Lesson 11 Tackling Online Hate		Lesson 5 Internet services		Lesson 5 Lights, camera, render	
	Lesson 12 Cyber Protection Assessment 2.		Lesson 6 The World Wide Web + Assessment		Lesson 6 Project	
7.4 Computer Systems	Lesson 1 Get in gear	8.6 Vector Graphics	Lesson 1 Get into shapes	9.5 Ethical, Environmental and Legal	L1 What are computer ethics	
	Lesson 2 Under the hood		Lesson 2 Paths united		L2 Social Media Ethics	
	Lesson 3 Orchestra conductor		Lesson 3 Icon challenges		L3 Environmental Issues	
	Lesson 4 It's only logical		Lesson 4 What will you make?		L4 Computer Misuse Act	
	Lesson 5 Thinking machines		Lesson 5 Under the hood		L5 Data Protection Act	
	Lesson 6 Sharing + Assessment		Lesson 6 Showcase + Assessment		L6 Copyright, Designs and Patents Act 1988	
End of Year Assessment	End of Year Assessment	End of Year Assessment				

Online Safety Topic



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	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 7						
Unit	7.1 Impact of technology – Collaborating online respectfully	7.2 Programming essentials in Scratch – part 1	7.2 Programming essentials in Scratch – part 2	7.3 The world of Cyber Security - part 1	7.3 The world of Cyber Security - part 2	7.4 Computer Systems
Big Question	How do I use a computer?	How do I program a computer?	How do I program a computer?	How do I recognise online threats?	How do I recognise online threats?	How do computers really work, under the hood?
Summary	Using the keyboard and mouse, signing in, choosing a strong password, accessing our files, using Office and Teams	Basic programming with blocks of code. Writing sequences, selection and iteration. Putting it all together in a game.	Basic programming with blocks of code. Writing sequences, selection and iteration. Putting it all together in a game.	Staying safe online, what the dangers are, knowing how to spot a phish or fake news, behaving ethically and reporting problems.	Staying safe online, what the dangers are, knowing how to spot a phish or fake news, behaving ethically and reporting problems.	The CPU, RAM, ROM and storage. Operating systems and logic gates. How does it all fit together to make a "thinking machine"?
Year 8						
Unit	8.1 Modelling data – Spreadsheets	8.2 Computer Control & Sequencing	8.3 Python Turtle	8.4 Cybersecurity	8.5 Computer Networks	8.6 Vector Graphics
Big Question	How can data help me make decisions?	How can I solve problems with flowcharts?	How can I write code like a pro?	How do we ensure our online lives are positive?	How does the internet work?	How can we design vector graphics?
Summary	Learning our way around a spreadsheet and using it to plan a party! Cell referencing, ranges, formulas and charts.	We look at systems that use simple loops and basic outputs, and then move on to look at systems that have multiple inputs and outputs.	We learn about computational thinking and algorithm design. The importance of learning how to program and go to learn the basics of Python Programming.	This unit takes the learners on an eye-opening journey of discovery about techniques used by cybercriminals to steal data, disrupt systems, and infiltrate networks.	Connecting computers together, breaking data into packets, how Wi-Fi works, what's my IP? How the internet is not the WWW!	An opportunity to design graphics using vector graphic editing software. The lessons are tailored to Inkscape.



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COMPUTING

Our Lady's Catholic College

Lancaster



Year 9						
Unit	9.1 Graphic Design – part I	9.1 Graphic Design – part 2	9.2 Python programming	9.3 Physical Computing	9.4 Media Animations	9.5 Ethical, Environmental and Legal
Big Question	What are the properties of digital graphics?	How can we create digital graphics for a purpose?	How can I write code like Computer Scientist?	What's a Microbit?	What skills does a movie animator need?	How does the use of technology affect the world around us?
Summary	The unit explores how images are represented and stored by the computer.	Skills in design, photo editing and image manipulation using layers to create a digital graphic using a suitable graphics package such as Adobe Fireworks or Photoshop.	We take the leap into text coding, with input, variables, "if", "for" and "while", and put it all together in a quiz game.	We will get acquainted with the host of components built into the Microbit, and write simple programs that use these components to interact with the physical world	Using open source program Blender, we create a simple character like a snowman or BB8 and make a ten-second animation with it.	We explore ethical issues surrounding social media as well as the environmental issues surrounding new technology.