

Our Lady Queen of Peace

Catholic High School

Curriculum Overview

Year 7 Computing

Careers		
Local Market Information	Skills	Jobs
BAE Systems	Communication Teamwork Problem Solving Time Management Creativity Resilience Computational thinking Critical Thinking	Software Engineer Games Designer Data Analyst Graphical Designer Engineer Digital Marketer Network Technician Cyber Security Analyst

	Knowledge & Understanding			Subject Specific Literacy Development	Cultural Capital / Enrichment Opportunities
	Topics (Bigger Picture)	Knowledge (Key Concepts)	Recall & Retrieval Practice Focus	Key Vocabulary	
Half Term 1 Introduction to Computing and Digital Literacy	Introduction to the School Network	Logging onto their computer. Creating a strong and secure password. File systems. Email systems and Teams.	<u>Key word definitions</u> This topics keywords, Last topic key words._ <u>Misconceptions</u> Students will be questioned on common misconceptions identified in previous lessons and work produced. Quiz style questions and mini whiteboard activities. <u>Freya Models</u> Students to complete Freya models activity linked to keyword taught in previous lessons or previous topics.	Computing, Computer Science, Information Technology (IT), Digital Literacy, Hardware, Software, Network, Data, Technology, Career, Files, Word, PowerPoint, Formatting, Bold, Italics, underline, background, professional, formal, informal.	Mega Days Extra-Curricular Activities Personal Development Day visitors.
	What is Computer Science?	What is Computer Science? What is IT? What is Digital Literacy? Careers in computing			

	Knowledge & Understanding			Subject Specific Literacy Development	Cultural Capital / Enrichment Opportunities
	Topics (Bigger Picture)	Knowledge (Key Concepts)	Recall & Retrieval Practice Focus	Key Vocabulary	
	Understanding Word Processing	Introduction to Microsoft Word Introduction to Microsoft PowerPoint Keyboard shortcuts Basic formatting	<u>Key word definitions</u> This topics keywords, Last topic key words._ <u>Misconceptions</u> Students will be questioned on common misconceptions identified in previous lessons and work produced. Quiz style questions and mini whiteboard activities. <u>Freya Models</u> Students to complete Freya models activity linked to keyword taught in previous lessons or previous topics.		
Half Term 2 Networks and internet	Networks and The Internet	LAN Vs WAN Bandwidth Topologies =			
	The Internet	World Wide Web The Internet Web Server Server Websites	<u>Key word definitions</u> This topics keywords, Last topic key words._ <u>Misconceptions</u> Students will be questioned on common misconceptions identified in previous lessons and work produced. Quiz style questions and mini whiteboard activities.	Hardware, CPU, RAM, Storage, Input Device, Output Device, Keyboard, Monitor, Mouse, Microphone, Specification, Processor, Memory, Storage Capacity, Performance, User Requirements, Comparison	
	Inside a computer	CPU RAM Storage Input and output devices	<u>Freya Models</u> Students to complete Freya models activity linked to keyword taught in previous lessons or previous topics.		
Half Term 3	Computational thinking	Decomposition Pattern Recognition	<u>Key word definitions</u> This topics keywords,	Computational Thinking,	

	Knowledge & Understanding			Subject Specific Literacy Development	Cultural Capital / Enrichment Opportunities
	Topics (Bigger Picture)	Knowledge (Key Concepts)	Recall & Retrieval Practice Focus	Key Vocabulary	
Computational thinking and flowcharts		Abstraction Algorithms	Last topic key words._	Decomposition, Pattern Recognition, Abstraction, Algorithm, Solution, Problem, Process, Logical Thinking, Sequence, Algorithm, Flowchart, Symbol, Sequence, Decision, Process, Input, Output, Start, End, Logic, Decision, Condition, Input, Process, Output, Test, Debug, Solution, Evaluate	
	Algorithms and Flowcharts	Standard flowcharts Sequence Decision	Misconceptions Students will be questioned on common misconceptions identified in previous lessons and work produced. Quiz style questions and mini whiteboard activities.		
	Problem Solving with Flowcharts	Inputs Processes Outputs Testing Solutions	Freya Models Students to complete Freya models activity linked to keyword taught in previous lessons or previous topics.		
Half Term 4 Programming in Scratch	Sequences and Events	Sprites Event Blocks Sequences Stage Templates	Key word definitions This topics keywords, Last topic key words._	Scratch, Sprite, Stage, Block, Event, Sequence, Command, Script, Program, Animation, Selection, If, Condition, Boolean, True, False, Variable, Input, Output, Interaction, Iteration, Loop, Repeat, Forever, Debugging.	
	Selections	If Statements User Interaction Variables	Misconceptions Students will be questioned on common misconceptions identified in previous lessons and work produced. Quiz style questions and mini whiteboard activities.		
	Iteration	Loops Testing and Debugging	Freya Models Students to complete Freya models activity linked to keyword taught in previous lessons or previous topics.		

	Knowledge & Understanding			Subject Specific Literacy Development	Cultural Capital / Enrichment Opportunities
	Topics (Bigger Picture)	Knowledge (Key Concepts)	Recall & Retrieval Practice Focus	Key Vocabulary	
Half Term 5 Spreadsheets and data modelling	Spreadsheet Basics	Cells Rows Columns Formatting	<u>Key word definitions</u> This topics keywords, Last topic key words._	Spreadsheet, Cell, Row, Column, Worksheet, Workbook, Data, Formula, Label, Value, Formula, Function, SUM, AVERAGE, MIN, MAX, Calculation, Reference, Cell Address, AutoFill, Chart, Graph, Data, Analysis, Bar Chart, Pie Chart, Axis, Trend.	
	Formulae	SUM MAX MIN AVERAGE COUNTA COUNTIF	<u>Misconceptions</u> Students will be questioned on common misconceptions identified in previous lessons and work produced. Quiz style questions and mini whiteboard activities.		
	Charts and Graphs	Creating graphs Interpreting Data Anomalies	<u>Freya Models</u> Students to complete Freya models activity linked to keyword taught in previous lessons or previous topics.		
Half Term 6 Media Creation	Design Principles	Colour Audience Typography Layout	<u>Key word definitions</u> This topics keywords, Last topic key words._ <u>Misconceptions</u> Students will be questioned on common misconceptions identified in previous lessons and work produced. Quiz style questions and mini whiteboard activities.	Design, Audience, Purpose, Layout, Colour, Typography, Contrast, Balance, White Space, Graphic, Layer, Image, Text, Font, Crop, Resize, Alignment, Composition, Template, Logo	
	Creating a Graphic	Layers Images Test			
	Review and improve	Peers' assessment Refining designs	<u>Freya Models</u> Students to complete Freya models activity linked to keyword taught in previous lessons or previous topics.		

Key Assessments			
When	What will be assessed?	Why is this being assessed?	How will results be stored & students receive feedback?
Half Term 1	Key Piece – Online Safety Infographic: Demonstrate understanding of online safety, personal information, strong passwords, digital footprints and responsible online behaviour.	To understand starting points in Year 7 students. To identify misconceptions or gaps in knowledge that need to be retaught and where 1:1 support is needed.	Students will self-assess their work by going through the checklist given at the start of the activity and giving themselves a score.
Half Term 2	Key Piece – Computer Purchase Recommendation Report: Demonstrate understanding of hardware components, software, specifications and the ability to justify a suitable computer for a given user.	To develop a good understanding of what students already know from KS2. To identify misconceptions or gaps in knowledge that need to be retaught and where 1:1 support is needed.	Students will self-assess their work going through the answers as a class.
Half Term 3	Key Piece – Flowchart Solution to a Real-World Problem: Demonstrate decomposition, algorithm design, use of flowchart symbols and logical problem-solving skills.	To identify misconceptions or gaps in knowledge that need to be retaught and where 1:1 support is needed. To get a clear understanding of knowledge students have come with from KS2.	
Half Term 4	Key Piece – Interactive Quiz or Mini-Game: Demonstrate programming skills including sequence, selection, iteration, testing and debugging.	To identify misconceptions or gaps in knowledge that need to be retaught and where 1:1 support is needed. To develop students writing skills and ensuring they are able describe and explain an answer in full.	Students will self-assess their own assessments going through the questions as a class. Key Piece will be marked by the teacher and feedback will be given through Teams.
Half Term 5	Key Piece – School Event Budget Spreadsheet: Demonstrate data entry, formula use, formatting, chart creation and data analysis skills.	To identify misconceptions or gaps in knowledge that need to be retaught and where 1:1 support is needed. Develop students' confidence when presenting and Oracy skills when giving feedback to their peers.	Students will receive verbal feedback from both the teacher and their peers.
Half Term 6	Key Piece – School Event or Charity Poster: Demonstrate understanding of design principles, audience, layout, colour, typography and evaluation of a digital product.	To identify misconceptions or gaps in knowledge that need to be retaught and where 1:1 support is needed. To develop students writing skills and ensuring they are able describe and explain an answer in full.	Students will self-assess their own assessments going through the questions as a class. Key Piece will be marked by the teacher and feedback will be given through Teams.