



COMPUTING CURRICULUM

Long-Term Overview

Careers Pathways | Curriculum Enrichment | Online Safety

Our Computing Vision

At Park Road Academy, computing equips pupils to understand, create and participate safely in an increasingly digital world. The curriculum develops computational thinking, digital literacy, creativity and responsible use of technology. Explicit career links help pupils see how the knowledge and skills they acquire can support future study and employment.

Curriculum design at a glance

KNOWLEDGE	APPLICATION	CAREERS	ENRICHMENT
A carefully sequenced curriculum from EYFS to Year 6.	Opportunities to create, program, analyse and evaluate.	A linked digital or technology career within every unit.	Simple, achievable experiences that deepen learning.

Curriculum strands

Computing systems & networks	Programming	Creating media	Data handling	Skills showcase	Continuous provision
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Computing Curriculum Overview

Early Years Foundation Stage and Year 1

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Early Years Foundation Stage	CONTINUOUS PROVISION Computing through continuous provision Linked career: <i>Digital Creator</i> Skills connection: Explore technology through purposeful play.	COMPUTING SYSTEMS & NETWORKS Using a Computer Linked career: <i>Network Technician</i> Skills connection: Build confidence using devices and digital tools.	PROGRAMMING All about instructions Linked career: <i>Software Developer</i> Skills connection: Follow and give clear instructions.	COMPUTING SYSTEMS & NETWORKS Exploring Hardware Linked career: <i>Network Technician</i> Skills connection: Recognise and talk about familiar technology.	PROGRAMMING Programming Bee-Bots Linked career: <i>Automation Engineer</i> Skills connection: Program simple routes and correct mistakes.	DATA HANDLING Introduction to Data Linked career: <i>Data Analyst</i> Skills connection: Sort, compare and talk about information.
CURRICULUM ENRICHMENT	Planned experience: Bee-Bot obstacle-course challenge using a simple floor mat.					
Year 1	COMPUTING SYSTEMS & NETWORKS Improving mouse skills Linked career: <i>Graphic Designer</i> Career pathway: Digital skills at school → GCSE Art or Computing → Graphic design study → Graphic Designer	PROGRAMMING Algorithms unplugged Linked career: <i>Software Developer</i> Career pathway: Problem-solving at school → GCSE Computer Science → Computing study → Software Developer	SKILLS SHOWCASE Rocket to the moon Linked career: <i>Digital Project Manager</i> Career pathway: Plan and follow steps → GCSE Computing or IT → Digital/IT study → Digital Project Manager	PROGRAMMING Programming Bee-Bots Linked career: <i>Automation Engineer</i> Career pathway: Program robots at school → GCSE Computing or Engineering → Engineering study → Automation Engineer	CREATING MEDIA Digital Imagery Linked career: <i>Photographer</i> Career pathway: Capture and edit images → GCSE Art or Photography → Photography study → Photographer	DATA HANDLING Introduction to data Linked career: <i>Data Analyst</i> Career pathway: Sort and explore information → GCSE Maths or Computing → Data/computing study → Data Analyst
CURRICULUM ENRICHMENT	Planned experience: Digital photography walk around the school grounds.					

Career pathways are illustrative and help pupils connect classroom learning with future study and employment.



Computing Curriculum Overview

Years 2 and 3

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2	COMPUTING SYSTEMS & NETWORKS What is a computer? Linked career: <i>IT Systems Engineer</i> Career pathway: Understand computer systems → GCSE Computer Science or IT → IT/engineering study → IT Systems Engineer	PROGRAMMING Algorithms and debugging Linked career: <i>Software Developer</i> Career pathway: Debug and solve problems → GCSE Computer Science → Computing study → Software Developer	COMPUTING SYSTEMS & NETWORKS Word processing Linked career: <i>Digital Administrator</i> Career pathway: Create and organise digital work → GCSE IT or Business → Administration/business study → Digital Administrator	PROGRAMMING Programming: Scratch Jr Linked career: <i>Game Designer</i> Career pathway: Create digital games and stories → GCSE Computing or Creative Media → Game design study → Game Designer	CREATING MEDIA Stop Motion Linked career: <i>Animator</i> Career pathway: Create animations → GCSE Art or Media → Animation study → Animator	DATA HANDLING International Space Station Linked career: <i>Data Analyst</i> Career pathway: Explore and interpret information → GCSE Maths or Computing → Data/computing study → Data Analyst
CURRICULUM ENRICHMENT	Planned experience: Stop-motion film premiere for another class or families.					
Year 3	COMPUTING SYSTEMS & NETWORKS Networks Linked career: <i>Network Engineer</i> Career pathway: Understand connected devices → GCSE Computer Science or IT → Networking/IT study → Network Engineer	PROGRAMMING Programming Scratch Linked career: <i>Game Developer</i> Career pathway: Code and solve problems → GCSE Computer Science → Computing/game design study → Game Developer	COMPUTING SYSTEMS & NETWORKS Emailing Linked career: <i>Network Engineer</i> Career pathway: Communicate safely online → GCSE Computer Science or IT → Networking study → Network Engineer	COMPUTING SYSTEMS & NETWORKS Journey inside a computer Linked career: <i>Computer Systems Engineer</i> Career pathway: Understand computer components → GCSE Computer Science or IT → Computer systems study → Systems Engineer	CREATING MEDIA Video Trailers Linked career: <i>Film Editor</i> Career pathway: Create and edit video → GCSE Media or Creative Subjects → Film/media study → Film Editor	DATA HANDLING Comparison card databases Linked career: <i>Data Analyst</i> Career pathway: Sort and compare information → GCSE Maths or Computing → Data/computing study → Data Analyst
CURRICULUM ENRICHMENT	Planned experience: Create a green-screen or narrated video trailer.					

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Computing Curriculum Overview

Years 4 and 5

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 4	COMPUTING SYSTEMS & NETWORKS Collaborative learning Linked career: <i>Network Engineer</i> Career pathway: Work and share safely online → GCSE Computer Science or IT → Networking/IT study → Network Engineer	PROGRAMMING Further coding with Scratch Linked career: <i>Software Developer</i> Career pathway: Develop coding skills → GCSE Computer Science → Computing study → Software Developer	CREATING MEDIA Website design Linked career: <i>Web Designer</i> Career pathway: Design web pages → GCSE Computing or Creative Media → Web design study → Web Designer	SKILLS SHOWCASE HTML Linked career: <i>Digital Project Manager</i> Career pathway: Build and manage digital products → GCSE Computing or IT → Digital/IT study → Digital Project Manager	PROGRAMMING Computational thinking Linked career: <i>AI Researcher</i> Career pathway: Solve problems with logic → GCSE Maths and Computer Science → Computer science/AI study → AI Researcher	DATA HANDLING Investigating weather Linked career: <i>Data Analyst</i> Career pathway: Collect and analyse data → GCSE Maths or Computing → Data/computing study → Data Analyst
CURRICULUM ENRICHMENT	Planned experience: Website design challenge linked to a curriculum topic.					
Year 5	COMPUTING SYSTEMS & NETWORKS Search engines Linked career: <i>Network Engineer</i> Career pathway: Understand online information → GCSE Computer Science or IT → Networking/IT study → Network Engineer	PROGRAMMING Programming music Linked career: <i>Software Developer</i> Career pathway: Create digital content with code → GCSE Computer Science → Software development study → Software Developer	DATA HANDLING Mars Rover Linked career: <i>Data Analyst</i> Career pathway: Interpret data → GCSE Maths or Computing → Data science/computing study → Data Analyst	PROGRAMMING Micro:bit Linked career: <i>Electronics Engineer</i> Career pathway: Program physical devices → GCSE Science, Maths or Computing → Engineering study → Electronics Engineer	CREATING MEDIA Stop Motion Animation Linked career: <i>Animator</i> Career pathway: Create digital animation → GCSE Art, Media or Computing → Animation/media study → Animator	SKILLS SHOWCASE Mars Rover 2 Linked career: <i>Digital Project Manager</i> Career pathway: Plan and manage a digital project → GCSE Computing or IT → Digital/IT study → Digital Project Manager
CURRICULUM ENRICHMENT	Planned experience: Micro:bit invention challenge using equipment already in school.					

Career pathways are illustrative and help pupils connect classroom learning with future study and employment.



Computing Curriculum Overview

Year 6

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6	COMPUTING SYSTEMS & NETWORKS Bletchley Park and the history of computers Linked career: <i>Cyber Security Analyst</i> Career pathway: Explore codes and communication → GCSE Computer Science or IT → Cyber security/computing study → Cyber Security Analyst	COMPUTING SYSTEMS & NETWORKS Artificial Intelligence Linked career: <i>AI Engineer</i> Career pathway: Understand intelligent systems → GCSE Maths and Computer Science → Computer science/AI study → AI Engineer	PROGRAMMING Introduction to Python Linked career: <i>Programmer</i> Career pathway: Write code and solve problems → GCSE Computer Science → Software development study → Programmer	DATA HANDLING Big Data 1 Linked career: <i>Data Analyst</i> Career pathway: Collect and analyse large datasets → GCSE Maths or Computing → Data science/computing study → Data Analyst	DATA HANDLING Big Data 2 Linked career: <i>Data Scientist</i> Career pathway: Interpret complex data → GCSE Maths or Computing → Data science study → Data Scientist	SKILLS SHOWCASE Inventing a product Linked career: <i>Digital Product Manager</i> Career pathway: Plan, design and evaluate a product → GCSE Computing or Business → Digital/business study → Digital Product Manager
CURRICULUM ENRICHMENT	Planned experience: AI debate and a short Python coding challenge.					

Career pathways are illustrative and help pupils connect classroom learning with future study and employment.

Online safety: a whole-school thread

Explicit teaching

Online safety is revisited through planned lessons across the year, including privacy, respectful communication, reliability of information, managing risk and seeking help.

Applied whenever technology is used

Teachers reinforce safe and responsible behaviours whenever pupils use devices, access online content, communicate digitally or create and share media.



Computing Enrichment & Careers

Whole-school entitlement and future pathways

Year-group enrichment

Year group	Simple, achievable enrichment opportunity
Early Years Foundation Stage	Bee-Bot obstacle-course challenge using a simple floor mat.
Year 1	Digital photography walk around the school grounds.
Year 2	Stop-motion film premiere for another class or families.
Year 3	Create a green-screen or narrated video trailer.
Year 4	Website design challenge linked to a curriculum topic.
Year 5	Micro:bit invention challenge using equipment already in school.
Year 6	AI debate and a short Python coding challenge.

Whole-school computing experiences

SAFER INTERNET DAY A focused annual opportunity to revisit current online-safety themes.	STEM WEEK A practical computing or coding challenge connected to wider STEM learning.	NATIONAL CAREERS WEEK Digital-career spotlights, short videos or staff/visitor career links.	DIGITAL LEADERS Pupils support safe technology use, communicate key messages and model responsibility.
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