

Year 7

<u>Topic 1: Office 365</u>	<u>Topic 2: Web Awareness</u>	<u>Topic 3: Under the Hood</u>	<u>Topic 4: Scratch</u>	<u>Topic 5: Micro:bit</u>
<u>11 lessons</u> <i>Practical based topic using Office 365 to complete a series of documents.</i> Assessment: MS Forms Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Citizen’ badges - students work to complete the Bronze award by completing digital awareness and safety-based badges.	<u>6 lessons</u> <i>Theory based unit looking at key network knowledge and network threats and preventions.</i> Assessment: MS Forms and Bebras Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Entrepreneur’ badges – students continue to work to complete the Bronze award by completing badges to help learn how to originate ideas and bring them to life.	<u>6 lessons</u> <i>Theory based unit where students will learn about parts of a computer, binary logic and units of memory.</i> Assessment: MS Forms Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Maker’ badges - students continue to work to complete the Bronze award by completing badges to understand digital creativity and know how to build and make in the digital world.	<u>7 lessons</u> <i>Practical based unit where students will create a program to control a virtual pet. They will go through a project systems life cycle.</i> Assessment: MS Forms Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Maker’ badges - students continue to work to complete the Bronze award by completing badges to understand digital creativity and know how to build and make in the digital world.	<u>7 lessons</u> <i>Practical based unit where students will be challenged to program using MicroPython.</i> Assessment: MS Forms Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Worker’ badges - students continue to work to complete the Bronze award by completing badges to understand tools and techniques which are useful in the workplace, and employability skills.

Year 8

<u>Topic 1: AppLab</u>	<u>Topic 2: BEBRAS</u>	<u>Topic 3: Networks</u>	<u>Topic 4: MakeCode Arcade</u>	<u>Topic 5: EduBlocks (Python)</u>	<u>Topic 6: Data Representation</u>	<u>Topic 7: MicroPython</u>
<u>8 lessons</u> <i>Practical based unit. Students design and create their own app.</i> Assessment: MS Forms	<u>2 Lessons</u> UK Bebras Challenge – Live 9th - 20th November 2026 <i>The UK Bebras Challenge is organised by the Raspberry Pi Foundation. Each participant has 45 minutes to tackle a series of interactive tasks, designed to encourage logical thinking and problem-solving skills appropriate for their age group.</i> <i>Assessment: Bebras challenge. The challenge is conducted online, and tasks are marked automatically.</i>	<u>6 Lessons</u> <i>Theory based unit where students will expand on the basics of Networks in Computing. Network hardware, performance, protocols, models, topologies and packet switching.</i> Assessment: MS Forms	<u>7 lessons</u> <i>Practical based unit, where students will use Microsoft platform to create 2D Arcade games in MakeCode Arcade. Students are supported in their learning with video tutorials.</i> Assessment: MS Forms	<u>8 lessons</u> <i>Practical scaffolded unit towards text-based coding (Python). Students will apply block-based programming to get output responses.</i> Assessment: MS Forms	<u>5 lessons</u> <i>Theory topic, students will learn about binary, denary and hexadecimal systems. Binary addition is also covered.</i> Assessment: MS Forms	<u>2 lessons</u> <i>Python programming in a cross-curricular way. Students will apply Python programming code to create various programs linked to specific subjects in a fun way! Video tutorials will support independent learning and additional projects and challenges are available too.</i> Assessment: MS Forms

Year 9

<u>Topic 1: Flowol</u>	<u>Topic 2: BEBRAS</u>	<u>Topic 3: Computer systems</u>	<u>Topic 4: Python Basics (Micro: bit)</u>	<u>Topic 5: Boolean Logic (Logic.ly)</u>	<u>Topic 6: Using AI and digital tools responsibly</u>	<u>Topic 7: Cyber security</u>
<u>8 Lessons</u>	<u>2 Lessons</u>	<u>4 Lessons</u>	<u>9 Lessons</u>	<u>4 Lessons</u>	<u>8 Lessons</u>	<u>3 Lessons</u>
In this algorithm-based unit students will explore the practical application of flowcharts to solve real life problems. They will see how detailed planning is needed to solve seemingly simple everyday automated tasks.	UK Bebras Challenge – Live 9th - 20th November 2026 The UK Bebras Challenge is organised by the Raspberry Pi Foundation. Each participant has 45 minutes to tackle a series of interactive tasks, designed to encourage logical thinking and problem-solving skills appropriate for their age group.	In this unit pupils will discover the difference between general purpose and embedded systems. They will examine computer architecture and the components that make up a processor. Pupils will recognise the need for storage and be able to select a suitable storage device for a given purpose.	Students will dive into a series of fun and practical based Python knowledge lessons. This will allow students to create and test small functional programs. Using the micro:bit students will be able to apply skills to a physical device in order to interact with their output. Watching LEDs light up, respond to buttons pressed and even sense motion – all while learning the core skills of Python programming.	Students will understand what Boolean logic is and why it's important in programming. Students used Boolean values (True and False) and applied logical operators (and, or, not) to control program flow in Python. They will create logic diagrams and solve problems using truth tables and logical reasoning.	Pupils explore how AI and digital tools shape online search, communication and interaction. They consider environmental impacts and AI bias. Pupils learn about AI chatbots and influence, and reflect on how to use AI systems critically, safely and responsibly.	This unit takes pupils on a journey of discovery about techniques used by cybercriminals to steal data, disrupt systems and infiltrate networks. They will consider the value of data to organisations and what it is used for. They will look at social engineering techniques and common cybercrimes.
Assessment: MS Forms	Assessment: Bebras challenge. The challenge is conducted online, and tasks are marked automatically.	Assessment: MS Forms	Assessment: MS Forms	Assessment: MS Forms	Assessment: MS Forms	Assessment: MS Forms

Year 7

Topic 1: Office 365	Topic 2: Web Awareness	Topic 3: Under the Hood	Topic 4: Scratch	Topic 5: Micro:bit
<u>11 lessons</u> <i>Practical based topic using Office 365 to complete a series of documents.</i>	<u>6 lessons</u> <i>Theory based unit looking at key network knowledge and network threats and preventions.</i>	<u>6 lessons</u> <i>Theory based unit where students will learn about parts of a computer, binary logic and units of memory.</i>	<u>7 lessons</u> <i>Practical based unit where students will create a program to control a virtual pet. They will go through a project systems life cycle.</i>	<u>7 lessons</u> <i>Practical based unit where students will be challenged to program using MicroPython.</i>
Assessment: MS Forms	Assessment: MS Forms and Bebras	Assessment: MS Forms	Assessment: MS Forms	Assessment: MS Forms
Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Citizen’ badges - students work to complete the Bronze award by completing digital awareness and safety-based badges.	Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Entrepreneur’ badges – students continue to work to complete the Bronze award by completing badges to help learn how to originate ideas and bring them to life.	Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Maker’ badges - students continue to work to complete the Bronze award by completing badges to understand digital creativity and know how to build and make in the digital world.	Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Maker’ badges - students continue to work to complete the Bronze award by completing badges to understand digital creativity and know how to build and make in the digital world.	Homework: iDEA (Inspiring Digital Enterprise Award) – Bronze challenge – ‘Worker’ badges - students continue to work to complete the Bronze award by completing badges to understand tools and techniques which are useful in the workplace, and employability skills.

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<u>8 lessons</u> <i>Practical based unit. Students design and create their own app.</i>	<u>2 Lessons</u> UK Bebras Challenge – Live 9th - 20th November 2026 <i>The UK Bebras Challenge is organised by the Raspberry Pi Foundation. Each participant has 45 minutes to tackle a series of interactive tasks, designed to encourage logical thinking and problem-solving skills appropriate for their age group.</i> <i>Assessment: Bebras challenge. The challenge is conducted online, and tasks are marked automatically.</i>	<u>6 Lessons</u> <i>Theory based unit where students will expand on the basics of Networks in Computing. Network hardware, performance, protocols, models, topologies and packet switching.</i>	<u>7 lessons</u> <i>Practical based unit, where students will use Microsoft platform to create 2D Arcade games in MakeCode Arcade. Students are supported in their learning with video tutorials.</i>	<u>8 lessons</u> <i>Practical scaffolded unit towards text-based coding (Python). Students will apply block-based programming to get output responses.</i>	<u>5 lessons</u> <i>Theory topic, students will learn about binary, denary and hexadecimal systems. Binary addition is also covered.</i>	<u>2 lessons</u> <i>Python programming in a cross-curricular way. Students will apply Python programming code to create various programs linked to specific subjects in a fun way! Video tutorials will support independent learning and additional projects and challenges are available too.</i>
<i>Assessment: MS Forms</i>		<i>Assessment: MS Forms</i>	<i>Assessment: MS Forms</i>	<i>Assessment: MS Forms</i>	<i>Assessment: MS Forms</i>	<i>Assessment: MS Forms</i>

Year 9

<u>Topic 1: Flowol</u>	<u>Topic 2: BEBRAS</u>	<u>Topic 3: Computer systems</u>	<u>Topic 4: Python Basics (Micro: bit)</u>	<u>Topic 5: Boolean Logic (Logic.ly)</u>	<u>Topic 6: Using AI and digital tools responsibly</u>	<u>Topic 7: Cyber security</u>
<u>8 Lessons</u>	<u>2 Lessons</u>	<u>4 Lessons</u>	<u>9 Lessons</u>	<u>4 Lessons</u>	<u>8 Lessons</u>	<u>3 Lessons</u>
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Assessment: MS Forms	Assessment: Bebras challenge. The challenge is conducted online, and tasks are marked automatically.	Assessment: MS Forms	Assessment: MS Forms	Assessment: MS Forms	Assessment: MS Forms	Assessment: MS Forms

GCSE Computer Science Curriculum Overview 2026-27

Year 10

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Year 11

<u>Term 1:</u>	<u>Term 2:</u>	<u>Term 3:</u>	<u>Term 4:</u>	<u>Term 5:</u>
Unit topic:	Unit topic:	Unit topic:	Unit topic:	Unit topic:
1.3.1 Networks	2.5.1 Languages	<u>Knowledge organisers tasks:</u>	Y11 Mock exams 2	Exam preparation
1.3.2 Wired and wireless networks, protocols and layers	2.5.2 The Integrated Development Environment (IDE)	1.1 System Architecture	DIRT paper response topics	Monday 10th May (PM) J277/01 Computer systems exam (1hr 30mins) Wednesday 19th May (PM) J277/02 Computational thinking, algorithms and programming exam (1hr 30mins)
1.4.1 Threats to computer systems and networks	Mock exam preparation	1.2 Memory and Storage		
1.4.2 Identifying and preventing vulnerabilities	Y11 Mock exams	1.3 Networks		
1.5 Systems software	DIRT paper response topics	1.4 Network Threats		
		1.5 Systems software		
		1.6 Ethical, legal, cultural and environmental impact		
		2.1 Algorithms		
		2.2 Programming fundamentals		
		2.3 Producing Robust programs		
		2.4 Computational logic		
		2.5 Programming languages and IDE's		
Independent Learning: SENECA/GCSE Python Lab	Independent Learning: SENECA/GCSE Python Lab	Independent Learning: SENECA/GCSE Python Lab	Independent Learning: SENECA/GCSE Python Lab	Independent Learning: SENECA/GCSE Python Lab

GCSE Computer Science Curriculum Overview 2026-27

Year 10

<u>Term 1:</u>	<u>Term 2:</u>	<u>Term 3:</u>	<u>Term 4:</u>	<u>Term 5:</u>	<u>Term 6:</u>
Unit topic: 1.1 System Architecture 1.1 Memory 1.2 Storage 2.2 Programming Fundamentals	Unit topic: 2.2 Programming Fundamentals 2.3.1 Defensive Design 2.3.2 Testing	Unit topic: 1.6 Ethical and legal impacts of digital technology 1.2.3 Units 1.2.4 Data Storage 2.1 Algorithms	Unit topic: 1.2.4 Numbers, Characters 2.4 Boolean logic	Unit topic: Y10 mock 1.2.4 Images, Sound 1.2.5 Compression	Unit topic: 1.6 Cultural and environmental impacts of digital technology Programming practice
Independent Learning: SENECA / e-revision	Independent Learning: SENECA / e-revision	Independent Learning: SENECA / e-revision	Independent Learning: SENECA / e-revision	Independent Learning: SENECA / e-revision	Independent Learning: SENECA / Isaac Computer Science

Year 11

<u>Term 1:</u>	<u>Term 2:</u>	<u>Term 3:</u>	<u>Term 4:</u>	<u>Term 5:</u>
Unit topic: 1.3.1 Networks 1.3.2 Wired and wireless networks, protocols and layers 1.4.1 Threats to computer systems and networks 1.4.2 Identifying and preventing vulnerabilities 1.5 Systems software	Unit topic: 2.5.1 Languages 2.5.2 The Integrated Development Environment (IDE) Mock exam preparation Y11 Mock exams DIRT paper response topics	Unit topic: <u>Knowledge organisers tasks:</u> 1.1 System Architecture 1.2 Memory and Storage 1.3 Networks 1.4 Network Threats 1.5 Systems software 1.6 Ethical, legal, cultural and environmental impact 2.1 Algorithms 2.2 Programming fundamentals 2.3 Producing Robust programs 2.4 Computational logic 2.5 Programming languages and IDE's	Unit topic: Y11 Mock exams 2 DIRT paper response topics	Unit topic: Exam preparation Monday 10th May (PM) J277/01 Computer systems exam (1hr 30mins) Wednesday 19th May (PM) J277/02 Computational thinking, algorithms and programming exam (1hr 30mins)
Independent Learning: SENECA/GCSE Python Lab	Independent Learning: SENECA/GCSE Python Lab	Independent Learning: SENECA/GCSE Python Lab	Independent Learning: SENECA/GCSE Python Lab	Independent Learning: SENECA/GCSE Python Lab

Key Stage 5 A-level Computer Science Curriculum Overview 2026-27

Year 12

Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Unit topic: 1.1 The characteristics of contemporary processors 1.2 Software and software development 2.1 Elements of computational thinking 2.2.1 Problem solving and programming Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.2 Software and software development 2.2 Problem solving and programming 2.3 Algorithms Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.3 Exchanging data. 1.4 Data types, data structures and algorithms. 1.5. Legal, moral, cultural & ethical issues. Mini-programming project Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.5. Legal, moral, cultural & ethical issues. Mini-programming project NEA programming project (ANALYSIS) Revision Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: NEA programming project (DESIGN) Revision OOP Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: NEA programming project (DESIGN) Revision Y12 Mock exam Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.

Year 13

Half term 1	Half term 2	Half term 3	Half term 4	Half term 5
Unit topic: 1.1 The characteristics of contemporary processors, input, output and storage devices. 1.2 Software and software development. 2.1 Elements of computational thinking. 2.2 Problem solving and programming. Independent Learning: Programming project Cornell notes Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.2 Software and software development. 1.3 Exchanging data. 2.3 Algorithms Independent Learning: Programming project Cornell notes Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.3 Exchanging data. 1.4 Data types, data structures and algorithms. 1.5 Legal, moral, cultural and ethical issues. Independent Learning: Programming project Cornell notes Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: Programming project Independent Learning: Programming project Cornell notes Isaac Computer Science Revision of units identified from mock QLA.	Unit topic: Revision & Assessments Independent Learning: Cornell notes Isaac Computer Science Revision of all topics.

Key Stage 5 A-level Computer Science Curriculum Overview 2026-27

Year 12

Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Unit topic: 1.1 The characteristics of contemporary processors 1.2 Software and software development 2.1 Elements of computational thinking 2.2.1 Problem solving and programming Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.2 Software and software development 2.2 Problem solving and programming 2.3 Algorithms Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.3 Exchanging data. 1.4 Data types, data structures and algorithms. 1.5. Legal, moral, cultural & ethical issues. Mini-programming project Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.5. Legal, moral, cultural & ethical issues. Mini-programming project NEA programming project (ANALYSIS) Revision Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: NEA programming project (DESIGN) Revision OOP Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: NEA programming project (DESIGN) Revision Y12 Mock exam Independent Learning: Isaac Computer Science Revision of units covered for end of unit assessment.

Year 13

Half term 1	Half term 2	Half term 3	Half term 4	Half term 5
Unit topic: 1.1 The characteristics of contemporary processors, input, output and storage devices. 1.2 Software and software development. 2.1 Elements of computational thinking. 2.2 Problem solving and programming. Independent Learning: Programming project Cornell notes Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.2 Software and software development. 1.3 Exchanging data. 2.3 Algorithms Independent Learning: Programming project Cornell notes Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: 1.3 Exchanging data. 1.4 Data types, data structures and algorithms. 1.5 Legal, moral, cultural and ethical issues. Independent Learning: Programming project Cornell notes Isaac Computer Science Revision of units covered for end of unit assessment.	Unit topic: Programming project Independent Learning: Programming project Cornell notes Isaac Computer Science Revision of units identified from mock QLA.	Unit topic: Revision & Assessments Independent Learning: Cornell notes Isaac Computer Science Revision of all topics.