

Computing KS3 Assessment Descriptors



Year 7

Level	Descriptors
Advanced	• Can explain how algorithms, programming and codes can be used to solve problems and protect information. • Can independently create, test and debug programs and explain how improvements could be made. • Can select appropriate digital tools for different purposes. • Can evaluate information found online and explain how search engines return results. • Can explain the impact of online behaviour. • Uses accurate computing terminology confidently. • Can explain how AI is used in real-world contexts. • Can explain risks and ethical issues linked to AI. • Can evaluate whether AI-generated content is reliable and appropriate.
Secure	• Can explain how algorithms are used to solve problems and create computer programs. • Can independently create programs using sequence and selection and explain how they work. • Can confidently use digital tools to create, organise and present work. • Can explain how search engines help users find information and identify reliable sources online. • Can explain common online safety risks and appropriate responses. • Can identify and correct errors in simple code independently. • Uses computing terminology accurately. • Can explain how AI systems are used in everyday applications. • Can identify that AI systems are trained using data.
Developing	• Can recall basic computing concepts such as input, output, storage, sequence and simple algorithms. • Can create simple programs using sequence and simple selection with guidance. • Can use digital tools to create and format documents appropriately for a given purpose, with some guidance. • Can use search engines to find information online. • Can identify basic online safety risks and ways to stay safe online. • Can identify simple errors in code and make corrections with support. • Begins to use computing terminology appropriately. • Can explain AI using familiar examples. • Can identify advantages and disadvantages of AI systems.

Foundation	• Can identify basic computer hardware such as a keyboard, monitor and mouse, with support. • Can follow simple algorithms and create basic programs using sequence, with support. • Can use simple digital tools to type, save and open work, with support. • Can use digital tools to enter and present information with guidance. • Can identify simple online safety risks when prompted. • With support, can identify errors in simple code or digital work. • Uses basic computing vocabulary but may rely on generic terms or inaccurate descriptions. • Can identify examples of AI used in everyday life, with support. • Can recognise that information or content created by AI may not always be accurate and should be checked with support.
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Year 8

Level	Descriptors
Advanced	• Can explain how programming, data representation and emerging technologies can be used to solve real-world problems. • Can independently design, create and debug programs for unfamiliar problems. • Can select the most appropriate digital tools. • Can evaluate and improve digital projects by identifying strengths, weaknesses and possible improvements. • Can compare different methods of data representation and explain their advantages and limitations. • Can improve the quality and structure of code. • Uses precise computing terminology. • Can discuss ethical issues linked to AI. • Can critically evaluate AI-generated content.
Secure	• Can explain how programming and data representation are used to create digital solutions. • Can independently create programs using sequence, selection, iteration and variables. • Can confidently use digital tools across subjects. • Can design and develop digital projects for a given purpose. • Can explain how text, images and sound are represented digitally. • Can identify and explain errors independently. • Uses computing terminology consistently. • Can explain how AI systems use data and algorithms. • Can evaluate AI-generated content.
Developing	• Can explain how programming constructs such as sequence, selection and iteration are used to solve problems.

	• Can create programs using sequence, selection and iteration with guidance. • Can use digital tools effectively across familiar tasks. • Can use programming techniques learned in Python and Minecraft Education to solve problems. • Can explain simple binary numbers and how data is represented in computers. • Can debug simple programs with limited support. • Uses computing terminology accurately. • Can explain how AI systems are trained. • Can identify advantages and limitations of AI.
Foundation	• Can identify basic programming and data representation concepts such as sequence, binary and digital data. • Can create simple programs using sequence and selection with support. • Can use digital tools independently for familiar tasks. • Can recognise that computers store different types of data digitally. • Can identify features of a simple digital project. • Can identify simple errors in code. • Uses some computing terminology appropriately. • Can identify common uses of AI. • Can recognise that AI systems use data.

Year 9

Level	Descriptors
Advanced	• Can confidently apply knowledge of computer systems, networks and data representation to unfamiliar contexts. • Can create efficient, well-structured programs and justify decisions. • Can evaluate and select appropriate digital tools for different audiences and purposes. • Can interpret complex data from spreadsheets and databases and justify conclusions using evidence. • Can evaluate secure and responsible digital practices. • Can debug complex problems systematically. • Uses sophisticated computing terminology. • Can evaluate strengths, limitations and ethical implications of AI. • Can critically assess AI-generated outputs.
Secure	• Can explain how the CPU, RAM and storage work together within a computer system. • Can explain how computer systems and networks operate and how data is represented digitally. • Can independently design and create structured programs. • Can analyse, present and retrieve data effectively using spreadsheets and databases.

	• Can explain responsible digital behaviour. • Can independently debug, test and refine programs. • Uses accurate computing terminology consistently. • Can explain how AI systems use algorithms and training data.
Developing	• Can explain the role of the CPU, RAM and storage within a computer system. • Can explain system architecture, networks and data representation. • Can create structured programs with some independence. • Can analyse and present data accurately using spreadsheets and simple database tools. • Can explain how systems and data can be protected. • Can debug and improve programs. • Uses computing terminology accurately. • Can explain how AI systems process data.
Foundation	• Can identify components of a computer system such as the CPU, RAM and storage. • Can create structured programs with support. • Can use digital tools independently. • Can use spreadsheets and databases to organise and retrieve information with guidance. • Can apply secure and responsible digital behaviour. • Can identify simple problems in code. • Uses computing terminology appropriately. • Can describe how AI is used in industries.