



Brimscombe C of E Primary School

Progression of Knowledge and Skills in Computing

Year 1- Digital Literacy and online safety	Year 1-Creating digital content	Year 1-Data Handling and organisation	Year 1-Algorithms and Instructions	Year 1-Programming and coding
What pupils must know: How to log in to a site. The importance of keeping passwords safe. The need to log out at the end of a session. That technology can be digital or non-digital. That technology can involve risks. What pupils must be able to do: Log in and out independently. Save and open work. Type simple text. Identify examples of technology. Explain simple ways to stay safe.	What pupils must know: Digital tools can create art and stories. Digital content can include images, text, animation and sound. What pupils must be able to do: Use painting tools. Create simple digital stories. Add images, text and sound. Edit basic content.	What pupils must know: Data is information that can be collected and organised. Data can be grouped and shown using pictures. What pupils must be able to do: Sort and group items. Collect simple data. Create pictograms. Answer simple questions.	What pupils must know: Instructions must be clear and in order. Algorithms are sets of instructions. Errors are called bugs. What pupils must be able to do: Give instructions. Follow instructions. Identify and correct errors.	What pupils must know: Programs follow instructions called algorithms. Commands control actions in a program. What pupils must be able to do: Create simple programs. Run programs. Debug simple errors.

Year 2- Digital Literacy and online safety	Year 2-Creating digital content	Year 2-Data Handling and organisation	Year 2-Algorithms and Instructions	Year 2-Programming and coding
What pupils must know: The Internet connects computers worldwide. The difference between the Internet and World Wide Web. Websites are accessed through browsers. Search engines help find information. What pupils must be able to do: Search using keywords. Navigate websites and links. Identify smart devices. Explain how to stay safe online.	What pupils must know: Digital tools can create and edit images and music. What pupils must be able to do: Create digital artwork. Edit images using tools. Create simple music. Record sounds.	What pupils must know: Data can be organised using spreadsheets. What pupils must be able to do: Enter data into cells. Create simple charts. Answer questions using data.	What pupils must know: Algorithms are instructions that follow a sequence. What pupils must be able to do: Plan simple instructions. Follow and test algorithms. Debug errors.	What pupils must know: Programs respond to inputs and events. What pupils must be able to do: Use simple inputs (clicks and keys). Create basic programs. Debug programs.

Year 3- Digital literacy and Online safety	Year 3- Creating Digital Content	Year 3- Data Handling and Organisation	Year 3- Algorithms and Instructions	Year 3- Programming and Coding	Year 3- Essential Digital Skills
What pupils must know: Digital communication methods such as email. Email may include	What pupils must know: Presentation software can communicate ideas.	What pupils must know: Databases store organised data. Spreadsheets use formulas.	What pupils must know: Algorithms can include repetition. What pupils must be	What pupils must know: Programs use inputs and outputs. What pupils must be	What pupils must know: Typing requires correct posture. What pupils must be

attachments. Personal information must be kept safe. What pupils must be able to do: Send emails safely. Use attachments appropriately. Identify unsafe communication. Report concerns.	What pupils must be able to do: Create presentations. Insert text and images. Use animations. Present clearly.	What pupils must be able to do: Create simple databases. Use formulas. Interpret results.	able to do: Plan algorithms. Use repetition. Debug errors.	able to do: Create programs using repetition. Debug and improve programs.	able to do: Use basic touch typing. Type accurately.
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Year 4-Digital Literacy and Online safety	Year 4- Creating Digital Content	Year 4- Data Handling and Organisation	Year 4- Algorithms and Instructions	Year 4- Programming and Coding	Year 4- Emerging Technologies
What pupils must know: Search engines rank information. Online information is not always reliable. Facts, opinions and fake news differ. What pupils must be able to do: Use refined searches. Evaluate sources. Identify misleading information.	What pupils must know: Digital tools can create animations and audio. What pupils must be able to do: Create animations. Edit audio and digital content.	What pupils must know: Data can be collected and compared. What pupils must be able to do: Collect and organise data. Compare data. Draw conclusions.	What pupils must know: Algorithms can include selection and repetition. What pupils must be able to do: Plan logical solutions. Refine algorithms.	What pupils must know: Programs use variables and conditions. What pupils must be able to do: Use if/else statements. Use loops. Debug programs.	What pupils must know: AI uses data to make decisions. What pupils must be able to do: Use AI tools safely. Write simple prompts.

Year 5- Digital Literacy and Online Safety	Year 5- Creating Digital Content	Year 5- Data Handling and Organisation	Year 5- Programming and Coding	Year 5- Physical Computing and External Devices
What pupils must know: Online tools allow communication and collaboration. Digital content can be shared widely. What pupils must be able to do: Collaborate safely online. Manage digital work. Consider audience and purpose. Demonstrate responsible behaviour.	What pupils must know: Design improves user experience. What pupils must be able to do: Create quizzes, games and documents. Evaluate and improve work.	What pupils must know: Data can be analysed to identify patterns. What pupils must be able to do: Query data. Create graphs. Analyse and draw conclusions.	What pupils must know: Abstraction and functions improve programs. What pupils must be able to do: Use functions and variables. Create efficient programs. Debug code.	What pupils must know: Devices use inputs and outputs. What pupils must be able to do: Program sensors. Create simple control systems.

Year 6- Computer networks and the internet	Year 6- Programming and Coding	Year 6- Data handling and Analysis	Year 6- Digital Content Creation	Year 6- Physical Computing
What pupils must know: Networks allow devices to communicate (LAN and WAN). The Internet and World Wide Web are different.	What pupils must know: Python is a text-based language. Binary represents data. What pupils must be able to do:	What pupils must know: Data analysis identifies trends. What pupils must be able to do: Filter and sort data.	What pupils must know: Digital tools support publishing and design. What pupils must be able to do: Create blogs.	What pupils must know: Sensors collect environmental data. What pupils must be able to do: Collect and analyse data.

What pupils must be able to do: - Explain networks. - Create diagrams. - Apply online safety independently. - Explain the impact of digital technology.	- Use loops and functions together. - Use variables and input. - Create complex programs.	- Create graphs. - Analyse and justify conclusions.	Design and refine digital content.	Program devices to respond to input.
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