

Computing at Angel Oak Academy

At Angel Oak Academy, we develop the digital citizens of tomorrow by encouraging pupils to use technology responsibly. We believe that the children we teach need to be informed of current world affairs online throughout their time in school and need to be given the tools to appropriately decipher the most accurate information to use.

During their time at the academy, children will learn focus on three strands of the curriculum: Computer Science, Information Technology and Digital Literacy. The core of computing is Computer Science, in which our pupils will be taught the principles of information, computation, how digital systems work and how to put this knowledge to use through programming.

Through the information technology strand of the curriculum, children will be taught how to use technology effectively to analyse, evaluate and present data on a range of devices. Our pupils are equipped to use information technology by building on their knowledge and understanding in order to create programs, systems and a range of content.

Using a wide range of thoughtfully chosen resources, our curriculum approach ensures that children are equipped with the digital literacy skills needed to use technology respectfully, safely and responsibly. Children are also encouraged to recognise the opportunities that computing can offer for communication and collaboration.

We check for understanding through regular quizzing as well as teacher judgements during computing lessons. This informs our practice, CPD sessions, and provides us with knowledge to plan and sequence computing lessons in a progressive manner.

Our computing curriculum offers cross-curricular links with mathematics, science, PSHE, history, geography, and English. It also ensures that children become digitally literate by expressing themselves and developing their ideas through information and communication technology. We ensure it is at a suitable level, sequenced over time, and the fundamentals principles are adopted from EYFS through to KS2 so, that our children can be successful active participants in a digital world.

Computing Key Learning Indicators

	Computer Science	Information Technology	Digital Literacy
EYFS	<p>Begin to use instructional language when using technology.</p> <p>To use appropriate technological language to describe computers.</p>	<p>To know how to turn a device on and learn how to use a touch screen device.</p> <p>To complete basic instructions on an iPad.</p> <p>To programme a Bee-bot device to move forwards, backwards and to make left and right turns.</p>	<p>To identify a trusted adult.</p>
Year 1	<p>Sequence a simple set of instructions.</p> <p>Follow and give instructions related to position and direction.</p> <p>Debug simple algorithms.</p>	<p>Type words using a variety of keyboards.</p> <p>Save, retrieve and amend work on BUSYTHINGS paint.</p> <p>Use a track pad to navigate around a screen.</p>	<p>Memorise a simple username and password.</p> <p>Understand what appropriate online behaviour is.</p> <p>Identify who trusted adults are and their importance.</p> <p>Learn and understand the academy's rules of acceptable ICT use.</p>
	Vocabulary: algorithm, debug, sequence	Vocabulary: digital content	Vocabulary: information
Year 2	<p>Create and debug simple programs consisting of instructions.</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Write sentences using a word processor.</p> <p>Create, save, print, retrieve and amend work on BUSYTHINGS publisher.</p> <p>Use a mouse or arrow keys to insert words and sentences.</p> <p>Use appropriate editing tools to improve work.</p>	<p>Understand the importance of keeping personal information private online.</p> <p>Identify concerns about content on the internet or other online technologies.</p> <p>Identify where to go for help and support to use technology safely.</p> <p>Recognise common uses of information technology beyond school.</p>

	Vocabulary: algorithm, debug, sequence	Vocabulary: digital content, software	Vocabulary: information, data
Year 3	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.</p> <p>Solve problems by decomposing them into smaller parts.</p>	<p>Recognise that information can be found online, and that some information that we find can be more trusted than others.</p> <p>Recognise that web sites have specific addresses.</p> <p>Search for information online safely.</p> <p>Understand that the internet has filtering systems.</p> <p>Understand page-ranking systems when analysing search results.</p>	<p>To understand that the internet can be used positively for many different things.</p> <p>To understand that information on the internet can be altered and to recognise that not everything they see online is true.</p> <p>To know how to make safe decisions when using the internet and know what to do if they feel unsafe using the internet.</p>
	Vocabulary: algorithm, debug, sequence, program	Vocabulary: internet, World Wide Web, search	Vocabulary: information, data
Year 4	<p>Use sequence, selection, and repetition in programs.</p> <p>Work with variables and various forms of input and output.</p>	<p>To understand and discuss how digital information can be used to answer specific questions.</p> <p>To differentiate sponsored and actual search results.</p> <p>To critique high and low quality websites, identifying whether content is true, age-appropriate and relevant.</p>	<p>To understand what a digital footprint is.</p> <p>To identify the difference between factual and advertising content online.</p>

	Vocabulary: algorithm, debug, sequence, program, logical reasoning, repetition, input, output	Vocabulary: internet, World Wide Web, search	Vocabulary: information, data
Year 5	<p>Use sequence, selection, and repetition in programs.</p> <p>Work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p>	<p>To use the internet to research effectively.</p> <p>To use a computer to present information effectively.</p>	<p>To identify the different types of media and what purpose it has.</p> <p>To analyse sources and group them into whether the content is factual, opinion or biased.</p> <p>To find reliable sources online and recognise unsafe or suspicious content.</p>
	Vocabulary: algorithm, debug, sequence, program, logical reasoning, repetition, input, output, variables, selection, repetition	Vocabulary: internet, World Wide Web, search, services	Vocabulary: information, data
Year 6	<p>Understand computer networks including the internet, and understand how they can provide multiple services, such as the World Wide Web.</p> <p>To use a computer to design and create a programme that accomplishes a specific goal or task.</p>	<p>Select the most appropriate software to use after collecting, analysing data as a whole class.</p> <p>To present information using software.</p> <p>To combine various software for example, importing an edited image or video into a presentation or webpage.</p> <p>Create a blog or collaborative learning platform to share ideas on a topic or area of the curriculum.</p>	<p>To understand that content online can be altered and the dangers that come with this.</p> <p>To understand the risks of using social media.</p> <p>To understand and what is appropriate to post online and know how to report inappropriate content.</p>

	Vocabulary: algorithm, debug, sequence, program, logical reasoning, repetition, input, output, variables, selection, repetition, control, simulation	Vocabulary: internet, World Wide Web, search, services, computer networks	Vocabulary: information, data
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