



South Gosforth First School
Computing - Whole School Progression



In line with the National Curriculum, the South Gosforth First School Computing Curriculum aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Are responsible, competent, confident and creative users of information and communication technology

	Online Safety & Wellbeing	Programming	Digital Presentation & Media	Data & Information
Nursery	Know to tell a trusted adult if something on the screen upsets them Stop using a digital device when the timer runs out	Make toys work using buttons/switches Think logically about a problem Work with a partner to solve a problem Follow a simple algorithm	Know a photo can be taken on a digital device I can use pretend technology in my role play I can turn on the music centre and select music	Know passwords help keep information safe on a digital device
Reception	Know to tell a trusted adult if something on the screen upsets them Stop using a digital device when the timer runs out Talk about ways to stay safe when I am using a digital device Know examples of AI tools and how they can help us e.g Alexa	Plan a route for a friend or robot Know how to code a robot to go to a certain place Begin to debug an algorithm or some code	Identify some parts of a computer Indicate how to turn a digital device on Begin to move the mouse, knowing this moves the cursor on the screen Type on a computer with support Take a photograph with support	Use a pictogram to help answer questions Count, sort and group information on an iPad
Year 1	Understand what the internet is and how people use it. Understand what personal information is and why we keep personal information private. Identify when and where to go for help when concerned. Identify the AI tools in the home eg. Alexa and know that they aren't real humans	Understand that a program is a set of commands Plan and execute a programme Build a sequence of commands in steps from a given starting point Debug a program to correct errors Evaluate how successful they were in meeting the task requirements	Identify the main parts of a computer Turn on the computer and log on with an aid Use the keyboard to edit text and delete letters Use a keyboard to type their name on a computer Choose appropriate paint tools and programmes to create a picture	
Year 2	What are the dangers of sharing photos online? Understand that People online are not always who they say they are.	Predict the outcome of a command Compare different programming blocks Choose a command for a given purpose Build a sequence of commands in steps	Know a photo can be taken on a digital device Use different tools to change how a photograph looks Add text, image and sound to an ebook creation	Enter data onto a computer Use pictograms, graphs and tallies to answer questions Use a computer to present information in different ways



	Using the Internet responsibly. Being respectful Discuss the difference between real and made up AI images Know that AI tools can make mistakes	Debug a program Test a program created and evaluate how successful it has been	Use a digital device to plan and create a piece of music	
Year 3	Understand why and how people can be nasty online. Describe the term 'sharing online' and why we need to get permission to share photos and videos of other people. Understand why people pretend to be someone else online. Know the difference between talking to an AI chatbots or smart speaker and talking to a friend or trusted adult, and how to recognise unhealthy conversations that might occur Understand why we should not always trust what we read online and how to check Understand the importance of being kind in the real world and also online. Understand how to protect digital content with a strong password.	Create an algorithm for different characters Create programs that include sequences, events, loops, and conditionals Explain what sequence means and demonstrate it in an algorithm Explain why the code is in that particular sequence Run their code, debug and identify if it meets the requirements of the task Evaluate how successful they were in meeting the task requirements	Copy and paste text and images Find and replace words Begin to use a wider range of text formatting tools Experiment with keyboard shortcuts Create a stop frame animation Add some additional media to a stop frame animation	Understand what a branching database is Retrieve information on a branching database Create a branching database Create yes/no questions that will divide data into subgroups
Year 4	Understand what to do if something upsets you online. Understand why and how people can be nasty online. Describe the term 'sharing online' and why we need to get permission to share photos and videos of other people. Understand why people pretend to be someone else online. Understand why we only talk to people we know in the real world, when online. Understand why we should not always trust what we read online and how to check Understand the importance of being kind in the real world and also online. Understand how to protect digital content with a strong password.	Create an algorithm that includes show, hide, and move blocks Create an algorithm that includes relevant sound blocks Begin to include additional code that enhances the function of the game and reflects design choices Create programs that include sequences, events, loops, and conditionals Run their code, debug and identify if it meets the requirements of the task Evaluate how successful they were in meeting the task requirements Gain practical skills for creating, testing, and transferring code to micro:bits	Create and edit an ebook Use an online image search and voice record to add media to an ebook Use a range of formatting tools to enhance a digital book Design and create images using 3D shapes Manipulate, move and combine shapes to create a new object Use a range of tools to create and edit digital images.	