

# Key Curriculum Skills, Knowledge and Progression: Computing



<i>Reception</i>	<i>Year 1</i>	<i>Year 2</i>
<p>Understand that programs begin as simple lists of instructions</p> <p>Begin to use programs which create pictures and text</p> <p>Know that information can be retrieved from computers</p> <p>General discussions about technologies used</p> <ul style="list-style-type: none"> <li>- How is technology used in school?</li> <li>- How is technology used at home?</li> </ul> <p>Show an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones</p> <p>Understand that different technologies have different uses and benefits/drawbacks</p> <p>Know how to operate simple equipment, e.g. turn on CD player, use remote control etc.</p> <p>Show skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images</p>	<p>Understand that algorithms are lists of simple instructions to complete an activity</p> <p>Create and debug simple programs by breaking programs down into step by step instructions</p> <p>Use technology purposefully to create pictures, text and audio</p> <p>Understand how to log on and create files</p> <p>Recognise common uses of information technology beyond school</p> <p>Use technology safely and respectfully, keeping personal information private</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p>	<p>Understand that algorithms are lists of simple instructions to complete an activity and begin to explore more complex systems</p> <p>Create and debug programs by breaking programs down into step by step instructions</p> <p>Understand what a program is likely to do based on a set of instructions</p> <p>Use technology purposefully to create pictures, text, audio and use numbers</p> <p>Understand how to log on, create files and save work that can be retrieved</p> <p>Recognise common uses of information technology beyond school</p> <p>Use technology safely and respectfully, keeping personal information private</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p>

# Key Curriculum Skills, Knowledge and Progression: Computing



<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Year 6</i>
<p>Design, write and debug programs</p> <p>Understand how changing variables affect the outcomes</p> <p>Be able to use logic to explain why a program does or doesn't work</p> <p>Be able to retrieve information efficiently when searching online</p> <p>Select, use and combine a variety of software to design and create a range of content, including presenting data and information using PowerPoint</p> <p>Learn how to use technology safely, respectfully and responsibly</p>	<p>Design, write and debug programs that accomplish specific goals</p> <p>Be able to create sequences and make selections</p> <p>Be able to use logic to explain why a program does or doesn't work and begin to suggest alternative solutions</p> <p>To appreciate how information and links are selected when searching online</p> <p>Select, use and combine a variety of software on a range of digital devices to design and create a range of programs and content that accomplish given goals</p> <p>Recognise acceptable/unacceptable behaviour online</p>	<p>Design, write and debug programs that accomplish specific goals, including simulating physical systems</p> <p>Know the effect of variables in a program</p> <p>Be able to sequence, make selections and use repetition in programs</p> <p>Be able to develop logical reasons (applying rules in a systematic way to complete a task) to detect errors (bugs)</p> <p>Be able to email safely and collaborate and share on shared sites and understand how this is possible within simple networks.</p> <p>Use as a communication tool to go beyond emailing (E.g. blogging)</p> <p>Design and create a range of content that accomplish given goals, including numerical and data applications e.g. Excel, podcasting and safe use of messaging</p> <p>Identify a range of ways to report concerns about content and contact online</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling physical systems</p> <p>To understand the effect of inputs (adding data into a program or computer system) and outputs/variables</p> <p>Be able to develop logical reasons (applying rules in a systematic way to complete a task) to detect and correct errors (bugs)</p> <p>Understand that networks, including the internet, can provide multiple services and appreciate how the network operates</p> <p>To appreciate how information and links are ranked when searching online</p> <p>To use IT to create multimedia presentations for audiences beyond the classroom</p> <p>Always use technology safely, respectfully and responsibly</p>