# Progression of skills in Computing

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---|---|---|---|---|---|---|
| **Computer Science** | • Understand what algorithms are<br>• Create simple programs | • Understand that algorithms are implemented as programs on digital devices<br>• Understand that programs execute by following precise instructions<br>• Debug simple programs<br>• Use logical reasoning to predict the behaviour of simple programs | • Write programs that accomplish specific goals<br>• Use sequence in programs<br>• Work with various forms of input<br>• Work with various forms of output | • Design programs that accomplish specific goals<br>• Design and create programs<br>• Debug programs that accomplish specific goals<br>• Use repetition in programs<br>• Control or simulate physical systems<br>• Use logical reasoning to detect and correct errors in programs<br>• Appreciate how search results are selected | • Solve problems by decomposing them into smaller parts<br>• Use selection in programs<br>• Work with variables<br>• Use logical reasoning to explain how some simple algorithms work<br>• Use logical reasoning to detect and correct errors in algorithms<br>• Understand computer networks, including the internet<br>• Appreciate how search results are ranked | • Design and write programs to solve problems<br>• Use sequences, repetition, inputs, variables and outputs in programs<br>• Detect and correct errors in programs<br>• Understand uses of networks for collaboration & communication<br>• Be discerning in evaluating digital content<br>• Understand computer networks, including the internet<br>• Appreciate how search results are ranked |
| **Information Technology** | • Use technology purposefully to create digital content<br>• Use technology purposefully to organise digital content<br>• Use technology purposefully to retrieve digital content | • Use technology purposefully to organise digital content<br>• Use technology purposefully to manipulate digital content<br>• Use technology purposefully to retrieve digital content | • Use search technologies effectively<br>• Use a variety of software to accomplish given goals<br>• Collect information<br>• Design and create content<br>• Present information | • Select a variety of software to accomplish given goals<br>• Select, use and combine internet services<br>• Design and create content<br>• Collect and present data<br>• Present information | • Combine a variety of software to accomplish given goals<br>• Select, use and combine software on a range of digital devices<br>• Analyse information<br>• Evaluate information<br>• Collect and present data<br>• Present information | • Combine a variety of software to accomplish given goals<br>• Select, use and combine software on a range of digital devices<br>• Analyse data<br>• Evaluate data<br>• Design and create systems<br>• Present information |
| **Digital Learning** | • Use technology safely<br>• Keep personal information private<br>• Recognise common uses of information technology beyond school | • Use technology respectfully<br>• Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies | • Use technology responsibly<br>• Identify a range of ways to report concerns about contact | • Use technology responsibly<br>• Understand the opportunities computer networks offer for communication<br>• Identify a range of ways to report concerns about content | • Use technology responsibly<br>• Understand the opportunities computer networks offer for collaboration<br>• Be discerning in evaluating digital content<br>• Recognise acceptable/ unacceptable behaviour | • Use technology responsibly<br>• Understand the opportunities computer networks offer for collaboration<br>• Be discerning in evaluating digital content |