



## Scheme of Learning: Computing

### Year: 8

<p style="text-align: center;"><b>Sequence 1:</b> <b>Technology</b></p> <p style="text-align: center;">To understand how technology assists us in everyday life, hardware and software</p>	<p style="text-align: center;"><b>Sequence 2:</b> <b>Searching the internet</b></p> <p style="text-align: center;">To know the different components of a computer system and understand the language they use</p>	<p style="text-align: center;"><b>Sequence 3:</b> <b>Computer programming</b></p> <p style="text-align: center;">To know the basic techniques and flow of a computer programme</p>	<p style="text-align: center;"><b>Sequence 4:</b> <b>Databases</b></p> <p style="text-align: center;">To learn how to manipulate a computer database both flat a hierarchical</p>
<ul style="list-style-type: none"> <li>• Introduction to hardware components. Learn that hardware can be grouped into input devices, output devices and storage devices.</li> <li>• Understand the difference between hardware and software and identify several pieces of hardware for each category.</li> <li>• Learn about the difference between applications software, operating system software and utilities software.</li> <li>• Learn how to Identify a few key points in the development of computers.</li> <li>• Identify key people and explain what they did to help in the development of computers including key events in the order in which they happened.</li> </ul>	<ul style="list-style-type: none"> <li>• Learn how to use advance search criteria to use the internet to look for information using searchengines.</li> <li>• Understand that not all websites can be trusted and will become involved in a in depth class discussion exploring this topic. furthermore.</li> <li>• Develop skills to find information that they can use in a professional informative brochure.</li> <li>• Find a range of facts and quotes and explain if they are from reliable sources.</li> <li>• Use a variety of different types of data that can be used in a publication showing an understanding of how particular data and visual information can be presented.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how to develop logical flow charts to develop a potential working model of a computer programme.</li> <li>• Learn how to create more complex codes including the repeat function and understand how a flow diagram relates to a program.</li> <li>• Apply logical sequencing to enhance skills to use pen tool to create simple shapes using Scratch.</li> <li>• Know how to draw complex shapes using the repeat scripts and understand the effectiveness of using such functions.</li> <li>• Know how to independently control a sprite by using the keyboard and an 'IF' statement to make. decisions. Create a simplegame and their own variables to successfully adapt the game.</li> </ul>	<ul style="list-style-type: none"> <li>• Know how to create a table, name the fields, select the data type with help andadd data to a database.</li> <li>• Understand how to apply field names and data types for a table</li> <li>• Create a simple form. selecting suitable field sizes for all text fields and understand how a table and a form are linked together.</li> <li>• Develop an existing model by creating queries using simple criteria</li> <li>• Develop query skills by creating queries using multiple criteria and logical operators and extend their skills to using wildcards to search for more flexible data.</li> </ul>



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Interleaving:	Deeper Learning:	Formative Assessment:
<ul style="list-style-type: none"><li>• What programming language is</li><li>• Knowledge of spreadsheet formulas</li><li>• Examples of where computers are used in society giving a wider context</li><li>• Revision of computing terms</li><li>• Opinions about the effects of a digital footprint</li></ul>	<ul style="list-style-type: none"><li>• Understanding how to use complex queries on an existing database model</li><li>• Understanding technology in a wider sense, understanding how it aids us in everyday routines.</li><li>• Being able to use complex programming elements such as nesting and IF to enhance a model</li><li>• Understand computing in a wider sense historically, understanding the impact of some of the #computing greats.</li></ul>	<ul style="list-style-type: none"><li>• Whiteboards to check misconceptions</li><li>• Cold call questioning</li><li>• Extended writing in books</li><li>• Weekly Google Form homework quiz</li><li>• 6-week cumulative test</li></ul>