



## Scheme of Learning: Computing

### Year: 9 – 2021/22

<b>Sequence 1: Networks</b>	<b>Sequence 2: ICT in Shops and businesses</b>	<b>Sequence 3: Computer programming</b>	<b>Sequence 4: Create animations for a given purpose</b>
To understand what a network is and the potential threats to a network system	To know the different components of a computer system and understand the language they use	Write simple programmes using python	Create a simple animation using Flash
<ul style="list-style-type: none"><li>• Be able to describe what a network is and identify at least one network topology.</li><li>• Describe the advantages and disadvantages of network topologies and explain how data flow on a network may be disrupted.</li><li>• Understand the difference between LAN and WAN. Know some of the hardware and software needed to connect to a network.</li><li>• Explain what some of the threats are to a computer system and network. Demonstrate an understanding of the threats including how they are transferred and what they can do to a computer system.</li><li>• Translate knowledge into practical advice on how to avoid some of these dangers.</li></ul>	<ul style="list-style-type: none"><li>• Understand how a customer uses a barcode to get the price of a product.</li><li>• Demonstrate and understanding of how a supermarket uses ICT to keep a record of their stock levels.</li><li>• Explain how shops collect information about their customers and how this data is used.</li><li>• Describe the advantages of using new technology in shops.</li><li>• Describe what the shopping experience will be like in the future and understand the advantages and disadvantages of more than one piece of new technology.</li><li>• Describe how technology could change the shopping experience in the future.</li><li>• Explain what is meant by the term digital divide and how this can effect people.</li></ul>	<ul style="list-style-type: none"><li>• Understand how to initiate the programming platform to create simple code including the input and print scripts.</li><li>• Create variables and declare the data types for variables.</li><li>• Understand what an operator is and be able to use operators to effectively create programs to solve a number of scenarios.</li><li>• Use If statements to decide and use more complex If statements including “elif”.</li><li>• Create If statements within other If statements.</li><li>• Use the random function in a program.</li><li>• Use For and While loops in programs.</li><li>• Bring skills together to create simple games using Python.</li></ul>	<ul style="list-style-type: none"><li>• Understand the basic functionality of Flash and the purpose of using animation.</li><li>• Use the line tool and fill option to create a basic shape.</li><li>• Understand and demonstrate how to bend lines and convert an object to a symbol and apply a motion tween to make an object move.</li><li>• Use the drawing tools to create a simple shape.</li><li>• Learn how to create multiple layers with help and use layers to animate parts of the image independently.</li><li>• Understand how to export an animation as an animated GIF.</li><li>• Learn how to integrate pauses into an animation to make it easier to understand, giving the animation meaning and purpose</li><li>• Create a complete animation which is suitable for the purpose and target audience.</li></ul>



## Scheme of Learning: Computing

### Year: 9 – 2021/22

Interleaving:	Deeper Learning:	Formative Assessment:
<ul style="list-style-type: none"><li>• What programming language is</li><li>• Examples of where computers are used in society giving a wider context</li><li>• Opinions about the effects of computing in business and everyday life considering new technologies.</li></ul>	<ul style="list-style-type: none"><li>• Understanding how to use complex programming language to produce a pregame.</li><li>• Understanding technology in a wider sense, understanding how it aids us in everyday routines.</li><li>• Understand computing in a creative sense considering the purpose and audience.</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>