



St Mary and St Joseph's RC Primary School
Computing Map

	Year 3	Year 4	Year 5	Year 6
Computer Science	<p><u>Programming Turtle Logo and Scratch</u> Create and debug algorithms to draw regular polygons using the repeat command / block Draw shapes with spaces using penup and pendown Change and alter the pen settings 2Code Can create a design that represents a sequential algorithm Use a flowchart to create the code Can explain what object, Action, Output, Control and Event are in computer programming Can create an if statement Can explain what a variable is and why it needs a name Can create a timer and how it differs from the repeat command Can explain what debugging means Can use a design document to start debugging a program Can debug a simple program Explain why it is important to save their work regularly as part of the code development process. (Predator)</p>	<p>Write procedures using simple algorithms Change the colour of the pen Write text using the label command Draw shapes using setpos or setxy Fill shapes in different colours Can write a program which accomplishes a specific goal Create a program that includes a logical sequence Debug a program Can use repetition and selection and the duplicate function <u>2Code</u> Can use sketching to design a program Create code that reflects their design Can create an if/else statement Can use the repeat command Can explain what a variable is and use them effectively Can create a timer Know what decomposition and abstraction are in computer science (Burps bottoms and bile)</p>	<p><u>Skills</u> <u>Scratch</u> Can move and edit blocks as part of an algorithm Program an algorithm as a sequence of game instructions with actions and consequences. <u>2Code</u> Can create code that conforms to their design Can write a program that simulates a physical system Can explain and set/change variables Can create loops using the timer and if/else statements Can include buttons and objects that launch windows to websites and programs Can code a program that informs others <u>Computer Game Planner</u> Can review and analyse a computer game Can begin the process of designing their own game Can design the setting and upload images / or drawing tools to create walls, floor and roof Design characters including animations and sounds Can write instructions for their game for others Evaluate own and peers games (Alchemy island)</p>	<p><u>Kodu</u> Can follow instructions given in the Kodu programming environment Can describe the actions of a sequence of Kodu commands Can use tools to alter the size Create a game with an end goal eg –a race track Program a character to follow a path <u>2Code</u> Can plan a program to anticipate the variables to achieve the desired effect. Can use their plans to create their program Can debug when things do not work. Can explain what functions are and how they can be created. Can explain how to move code Can follow flowcharts to create and debug code <u>2Connect</u> Can describe and map out what a text adventure is Use 2connect to record ideas Use 2CreateaStory Adventure mode to create, test and debug using their plan Use coding concepts of functions, two-way selection and repetition to code their game Can use logical attempts to debug their code (Frozen Kingdom)</p>