Year 3 – Animal Challenge		
National Curriculum	**Composite**	**Component**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Understand the different parts within Scratch Know how to run computer programs Create a simple game based on an existing program.	Decomposing is when you look at a whole project and think about what parts are involved Run a program using the green flag Use keyboard keys to run a program Run a program to look for errors Correcting errors is called debugging A sprite is an object that can interact with other things Delete and insert new sprites Use the paint tool to create a new sprite Rename a sprite Recognise which sprite is selected through the blue halo around it. Duplicate a sprite. Blocks of code are organised into categories Categories are colour coded Blocks that are curved on the top can be used to start a program Event blocks often start a program Drag code into the script area Join blocks of code together Change what blocks do by typing inside of the white space Some blocks of code can be inserted inside another block of code Change the screen to become bigger Use the library to add a new backdrop Initialisation is the name of the code at the start of the program. It makes sure the program always runs in the same way. Save a file

		Open a file Change the name of a file
Year 3 – Dialogue		
National Curriculum	**Composite**	**Component**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Use sequence to create a computer program Recognise how an existing program works	A sequence is an ordered set of instructions A sequence must happen in an order Sequences must make sense and be precise An algorithm is a precise set of ordered steps that can be followed by a human or a computer. Debugging is finding an error in code and fixing it so the program runs correctly. Code runs vertically and each new command starts on a new line The stage area is where the program will run Say blocks will make the sprite say something using a speech bubble Wait blocks will delay or pause the program A screen is made up of pixels Move 10 steps actually means move 10 pixels

Year 4 – Sequence and Inputs		
National Curriculum	**Composite**	**Component**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Use inputs within a computer program	An input is a way of giving a digital device some information Keyboards, mouse, touchscreen and microphone are examples of inputs for a computer A digital device is an electronic machine that has programmed instructions Within Scratch, the following are examples of inputs  The point is direction block will change the way a sprite is facing A wait until block can have something else inserted inside of it This will mean the program will wait as long as it takes for that thing to happen. Scratch is arranged like a grid Go to x:y blocks will move a sprite to a certain place on the screen (0,0) is the middle of the screen. Some sprites have different costumes If you hover over them in the library it will roll through the costumes If you click on costumes you can see what options there are available You can create your own costumes You can change the size of the sprite by typing a bigger number into size under the stage area. Code can be deleted by dragging it out of the script area

Year 4 – Toy Giveaway (Count Controlled Loops)		
National Curriculum	**Composite**	**Component**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs Work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Organise a repeating sequence into a loop	A loop is a set of instructions or a sequence that is repeated A loop can also be called repetition A count controlled loop is where something happens a set number of times Loops are a more efficient way to program because they mean you don't write the same sequence multiple times Insert sound into scratch Each sprite has its own pre-loaded sounds New sounds can be selected and inserted. Sound is an example of an output from a computer.
Year 4 – Fish Tank (Indefinite Loops)		
National Curriculum	**Composite**	**Component**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs	Create a scene that includes indefinite loops Program sprites to perform different functions	An indefinite loop is a loop without end They are called forever loops in scratch. They will only end if a device is turned off or a program is stopped. A flow of control is a way to mark the order that things happens Dots go on each action A vertical line shows the directions A curved arrow going back to a previous action is used for repetition A set rotation block impacts the way a sprite faces or turns

Work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs		Left right will mean the sprite can only face in these directions Don't rotate means the sprite will only ever face in the one direction All round means the sprite is able to turn all around The change colour effect will change the colour of an object or sprite gradually A pick random block can be placed somewhere instead of a number and will choose a random amount between the set parameters each time.

Year 5 – Making Choices Quiz (Selection)		
National Curriculum	**Composite**	**Component**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs Work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Create a quiz where selection is used to impact the actions based on the answer	Choices within a program can impact the actions A condition is where a choice is made An action is the outcome of that choice and what happens next in the program Selection starts with an 'if' Conditions are either true or false (there are only two possible answers it is the correct answer or it is not) A program will operate differently if a condition is or isn't met Actions after a condition are slightly indented to the right underneath the previous block of code An ask block within scratch will allow the use to type an answer If the use spells the answer incorrectly it will still be wrong because the condition will see a false answer. Join blocks can be used to connect different bits of code. Multiple join blocks can be used within each other.
Year 5 – Selection within Loops (Butterfly fun)		
National Curriculum	**Composite**	**Component**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Solve problems by decomposing them into smaller parts	Create a game where an object moves around and different things happen when it touches other objects. Children will be able to use selection within a forever loop and count controlled loops.	A sequence is a set of ordered instructions A loop is a sequence that is repeated more than once A forever loop will repeat until a program is ended or a machine is turned off A count controlled loop will repeat a set number of times and then stop

Use sequence, selection, and repetition in programs Work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs		Selection starts with an if Selection means different things could happen The condition is where the choice is made The action is the outcome of that choice Recognise different conditions within an existing program Understand the flow of control within a blocks of code and how selection changes the flow. Use decomposition to think about the different parts needed to make the whole program Use an algorithm to plan a code Insert different sprites Include a variety of different actions Use debugging to check a program works in the way it was planned

Year 6 – Currently being updated		
National Curriculum	**Composite**	**Component**