Swans - Year 6 Summer 1 (B)

Computing: Programming 1: Music

What I should already know: I have learnt that an algorithm is when instructions are put in an exact order and that decomposition means breaking a problem into manageable chunks and that it is important in computing. I know that we call errors in an algorithm 'bugs' and fixing these 'debugging'. I know what machine learning is and how it enables computers to make predictions andthat loops in programming are where you set a certain instruction (or instructions) to be repeated multiple times. I know that abstraction is the removing of unnecessary detail to help solve a problem and that Scratch is a programming language and I know some of its basic functions. I understand how to use loops to improve programming and how decomposition is used in programming. I know that you can remix and adapt existing code and understand that a variable is a value that can change (depending on conditions) and know that you can create them in Scratch. I know what a conditional statement is in programming and understand that variables can help you to create a quiz on Scratch.

Enquiry Questions

How does Scratch use music elements?

How do you create a program that plays themed music?

How do you plan a soundtrack program?

How do you program a soundtrack?

How do you program music for a specific purpose?

Key Vocabulary

Basic commands	The simplest instructions that can be used.
Bug	A mistake or error in the code, stopping the program from working as intended.
Computer code	A set of instructions written in programming language, to tell a computer what to do.
Code (verb)	To write in programming language (code).
Code block	A visual representation for a section of code that performs a certain job. They can be snapped together to build a program.
Debug	To remove and repair the error or mistake in computer code.
Error	A mistake or a fault in software.
Live loop	Like loops, but instead of repeating a number of times, they go on forever. You can also have multiple running at the same time.
Loop	A repeated sequence of instruction.
Pitch (music)	A musical term which refers to how high or low a note is.
Program language	The particular library of code which a piece of software is written in, for example Java and C++.
Rhythm	A musical term that refers to the 'pattern' of long and short notes.
Scratch (®)	A coding program, in which you can develop interactive games and animations.
Sprite	Visual objects that can be manipulated through code, for example to move, respond, appear or disappear.
Soundtrack	A music recording that accompanies a film or TV show.
Tempo (music)	A musical term which refers to the speed of the music.
Timbre (music)	A musical term which refers to the characteristic trait of a sound.

Computing Skills

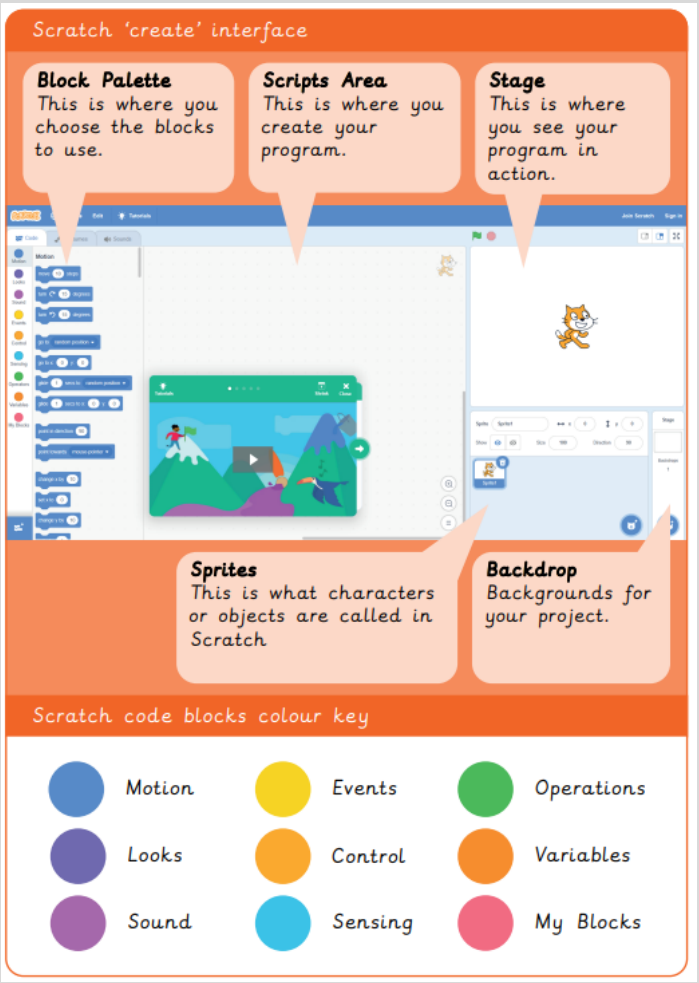
Pupils will:

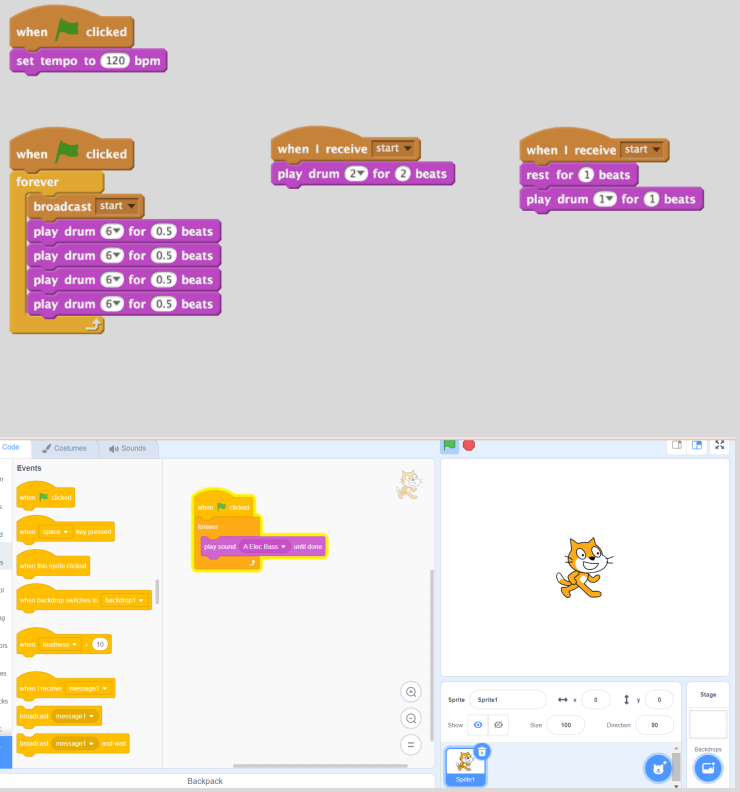
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

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

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information





Kapow Skills

Predict how software will work based on previous experience.
Write more complex algorithms for a purpose.
Iterate and develop their programming as they work.
Confidently use loops in their programming.
Use a more systematic approach to debugging code, justifying what is wrong and how it can be corrected.
Write code to create a desired effect. Use a range of programming commands. Use repetition within a program. Amend code within a live scenario.
Use logical thinking to explore software more independently, making predictions based on their previous experience.
Use a software programme (Scratch) to create music.
Identify ways to improve and edit programs, videos, images etc.

Links to other curriculum areas - Music: composition