



Year 6 Scratch



You have already learnt...

In Year 5, you looked at how to debug your programs and use sequencing to make sure things happened in the correct order. You considered how we use variables to impact our projects and make differences to how they run. You looked at repetition and how you can add loops and repetition to your projects to make the same actions repeat several times.

Key Skills

- Effectively design, write and debug programs for a clear purpose using Scratch
- Use sequence, selection and repetition within their programs
- Work with variables effectively within Scratch
- Use logical reasoning to locate and explain errors in programs they have designed

Key Knowledge

When you would like different parts of your Scratch project to start at different times - you can use a message. A message is triggered by an 'event' block and will start a separate algorithm. This means that your Scratch project can play out over several scenes and tell a story.

Key Vocabulary	
algorithm	An algorithm is a set of sequenced instructions or rules for solving a problem or completing a task in a logical order.
animate	To bring something to life through interactive features, such as moving objects, sounds and buttons.
debug	To find, remove or correct errors in a computer program.
iteration	To repeat a process. For example, an algorithm with an iteration for making a cake would be: 1. Put flour and butter into a bowl. 2. Whisk until smooth. 3. Add sugar and eggs into the bowl. 4. Repeat step 2 until smooth. ← 5. Spoon mixture into cake tin. 6. Bake until golden brown.
broadcast	This block sends out a message, like shouting out a signal. This is done in the middle or at the end of an algorithm .
deconstruct	Breaking down existing algorithms into smaller parts to see what they want to do.
sequence	The order in which a set of instructions are performed or carried out.
when I receive	This block listens out for the broadcast signal being shouted out and can then, when it is heard, trigger an event. This is used at the beginning of an algorithm .

Block Shapes	
There are six different types of block shapes: Hat , Stack , Boolean , Reporter , C and Cap .	
The main shapes that you will be using for your project are:	
Hat blocks Used at the start of every script.	
Stack blocks Used to perform the main commands.	
C blocks Used for looping blocks within the C block	

What Is an Algorithm?

Algorithms on a computer are exactly the same as everyday **algorithms**. They are a set of **sequenced** instructions or rules for solving a problem or completing a task in a logical order.

Computers need to have their instructions written in a special language called a programming language. We sometimes call this computer code.

There are lots of different types of programming languages. Some software uses visual block-based coding while others use text-based coding.



Next you will learn...

You will use Scratch in every year in KS2, learning to make animations, create games and write your own stories.

