

Year 4 - Computational Thinking

WHAT I SHOULD ALREADY KNOW

Know what an algorithm is



How to use coding software



Understand how a computer 'thinks'



Use logical reasoning to explain simple algorithms



KEY OBJECTIVES

Know that computational thinking uses 4 strands

I can decompose a problem

Use decomposition to figure out what Scratch code does

Know how to recognize patterns

Understand how to abstract key information

Understand how to create an algorithm

Use an algorithm to write a script using Scratch

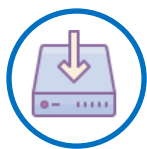
Use pattern recognition to modify a script

Combine computational thinking skills to solve a problem

Work with a partner to solve problems

MAKING CONNECTIONS

You will be using



Desktops

Scratch

Google Classroom

Hour of Code

Extend your learning



Can you add different features/scripts to your Scratch game?

Can you predict and justify what will happen with specific scripts?

Don't forget



KEY VOCABULARY



Decomposition— breaking down a problem into smaller parts



Pattern recognition— identifying patterns and familiar outcomes



Abstraction— identifying the important detail and ignoring irrelevant information



Algorithm Design— taking all of the information you have collected to create a recipe for success



Scratch— Programming software



Script— Written piece of text or code



Patterns— A repeated design



Loops— A sequence of instructions that is repeated



Collaborative— Produced by two or more people working together

