Year 4 Programming in Scratch
Knowledge Organiser

❓ What are we learning about programming in Scratch?

You may have used Scratch to program drawings and characters (sprites) to talk to each other but we can also use it program games, including racing games and quizzes. To do this we need to program interactions so that sprite can be controlled, sense other sprites/objects, make choices and score points. We can also use our Scratch programming skills in other software, such as programming a virtual reality robot.

📝 National Curriculum Content

Design, write and debug programs that accomplish specific goals.
Use sequence, selection, and repetition in programs; work with various forms of input and output.

📖 Key knowledge

- Know that sprites can be controlled in different ways using keyboard or touch screen inputs.
- Know that sprites can be programmed to sense other sprites or colours then make decisions. *(Eg, a car sprite could win the game if it touches a blue finish line or go back to start if it touches the green off the track.)*
- Know how to program variables, including data variable that can used to add a scoring system.

💡 Quick tips

- Save time by duplicating (making another) code blocks or sprites by right clicking on them.

- Use the colour picker when using a sense block to find the exact colour you need. Click the colour box, then the drop icon (below) and then the exact colour somewhere else on the screen.

🔤 Important Vocabulary

Inputs	An example of an input are the keyboard arrow keys, which could be programmed to move a sprite.
Selection	The sprite can be programmed to make a choice. For example, selecting whether an answer is right or wrong in a quiz.
Sensing	A sensing block is triggered when a sprite touches another sprite or a colour.
Variables	Something that changes in a program such as score or the speed of a car sprite.
Debug	Find an error in your code and correct it.

when 🚩 clicked
say Welcome to my Geography quiz. for 2 seconds
ask Q1. What is the capital city of Wales? and wait
if answer = Cardiff then
say Correct! for 2 seconds
else
say Incorrect for 2 seconds