Go further

1 Write an algorithm for the **Pico** Sprite in a program:

- **Pico** should jump when the space key is pressed by a change in y by 50, then wait 0.2 seconds and then have a change in y by −50.
- The program should count every time the **Pico** Sprite jumps.
- The variable should add one (1) to itself every time a jump happens.
- The program should start counting from 0 (the variable should start at 0).

Part 1	
❶	Start program when …
❷	
❸	

Part 2	
❶	Start program when …
❷	
❸	
❹	
❺	

2 Give two reasons why variables should have a clear name.

3 Create the program in Scratch for the algorithm in part **1**.
- Search and select the **Pico** Sprite
- Add the **Colorful City** Backdrop.

4 Test your code and check that you get the correct results.

Computational thinking

Write an algorithm with a variable that displays the user's name. It should:

- Ask the user for their name.
- Store that answer as a variable called **Name**.
- Display the word "Hello" and the value stored in the variable.

The output of your algorithm, for example, should say, "Hello Jack".

Jack → Hello Jack

INPUT   OUTPUT
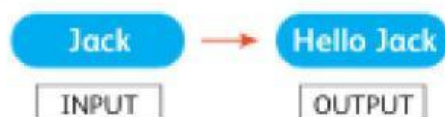
5 Write an outline plan for a second character in your program as follows:

The **Giga Walking** Sprite should say, "Hello!" when the Green Flag is clicked. The backdrop should switch to School when this sprite is clicked on. When the backdrop switches, **Giga Walking** should say, "Let's have fun at school!", then move 20 steps and then change its costume.

Remember to include the purpose, events and expected outcomes.

6 Create the program in Scratch for part **5**:

- Search and select the **Giga Walking** Sprite
- Add the **School** Backdrop.

7 Run your program and debug your code if needed.