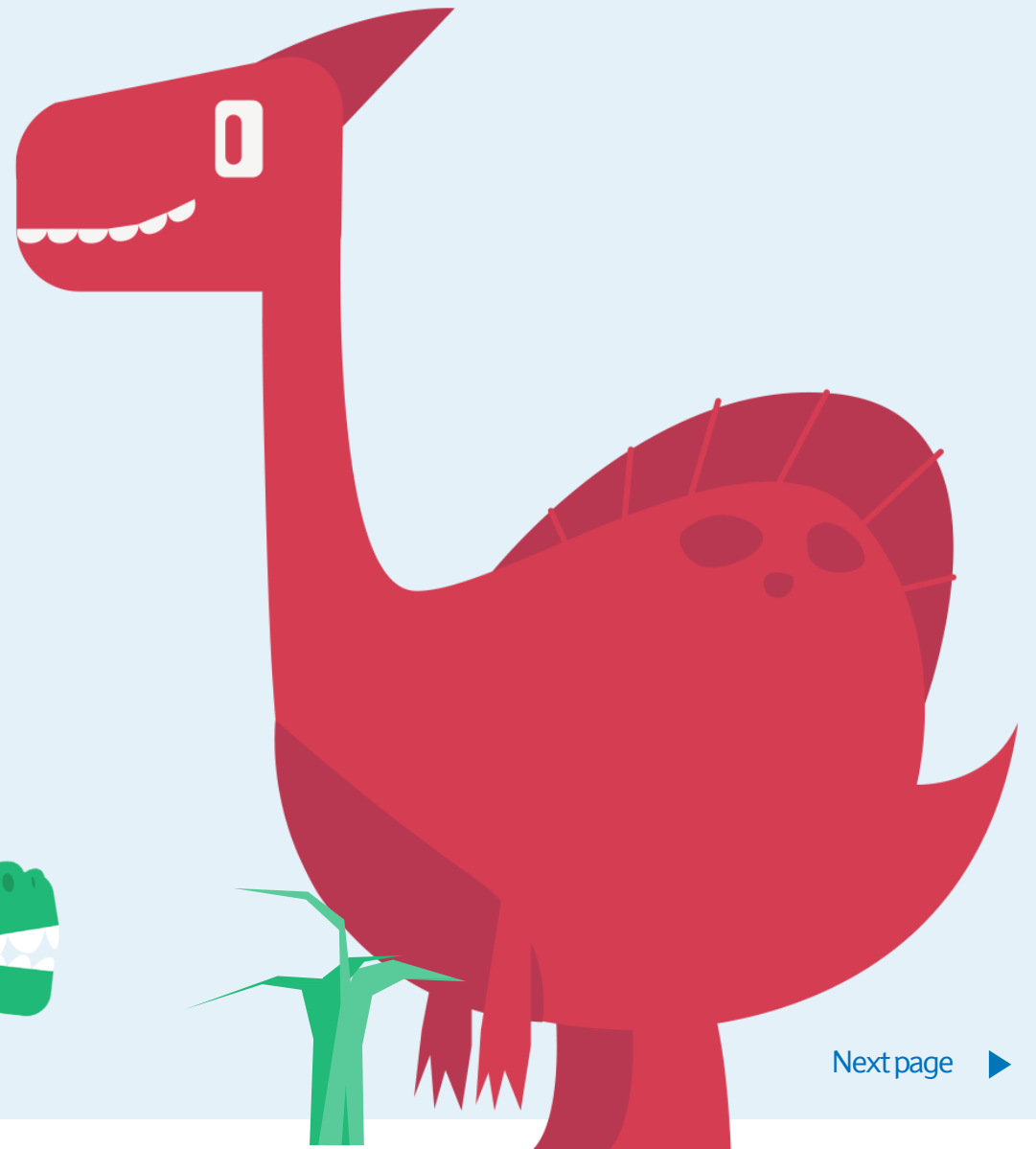
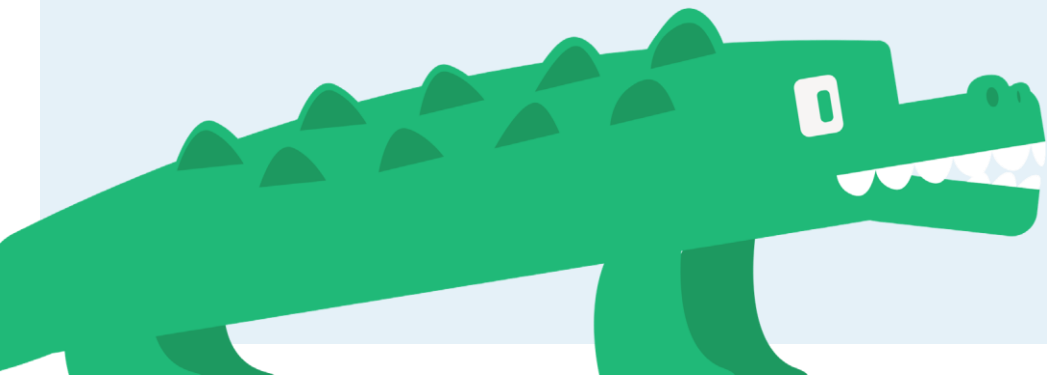


Student workbook

Microbe battle

Code Playground



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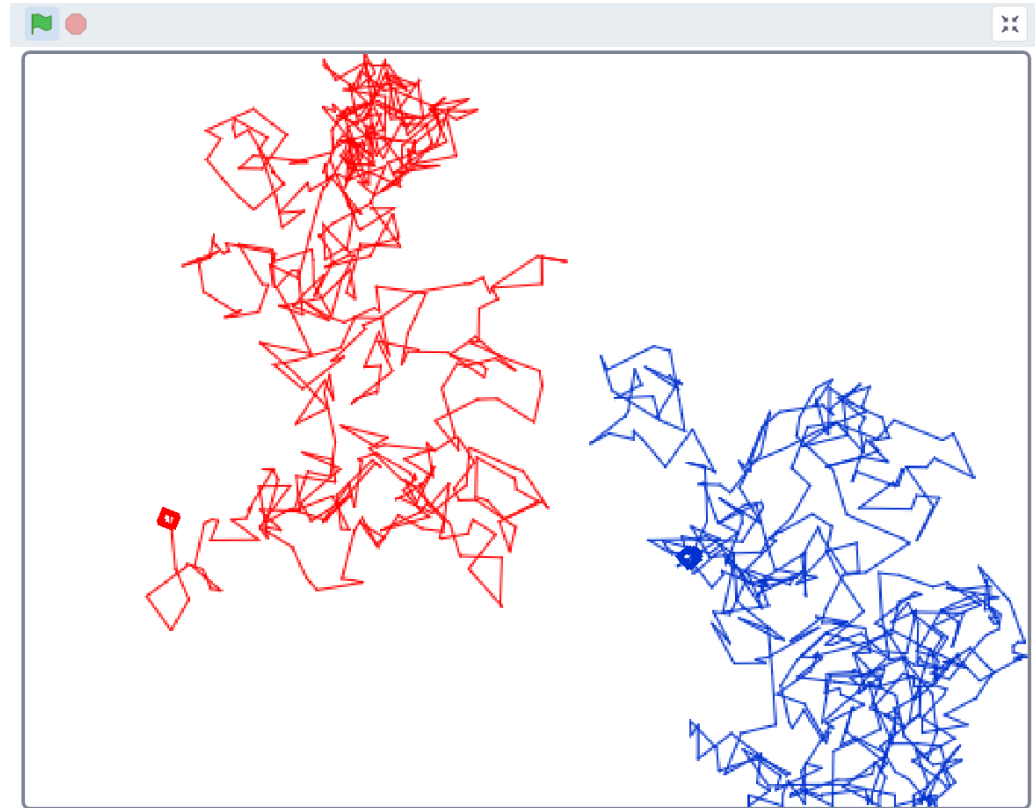
Microbe battle

Scratch project

This project was created as part of a 20 line challenge where you create the best project using 20 or less lines of code. Although this uses 20 lines on each sprite, it's still a fun example.

This project is designed for Scratch 3.0.

Hope you enjoy the game!

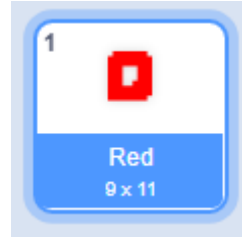
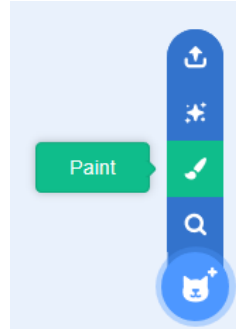


Microbe battle

Scratch project

Step 1

First you'll need to create your sprites. Use the paint sprite to draw one red and one blue microbe.



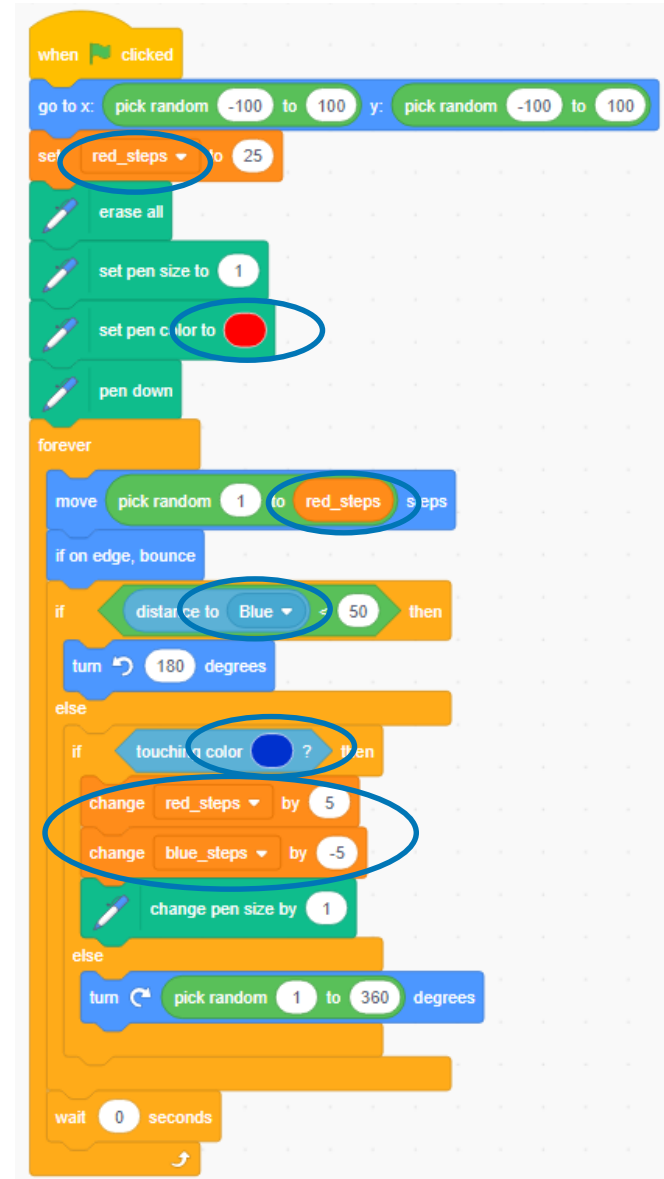
Microbe battle

Scratch project

Step 2

Add this script to each of your sprites and remember to change the colours for each one. There isn't any coding needed for the stage so your project is now complete.

Click the green flag to see which microbe is the winner!



```
when clicked
  go to x: pick random -100 to 100 y: pick random -100 to 100
  set red_steps to 25
  erase all
  set pen size to 1
  set pen color to red
  pen down
  forever
    move pick random 1 to red_steps steps
    if on edge, bounce
    if distance to Blue < 50 then
      turn 180 degrees
    else
      if touching color blue ? then
        change red_steps by 5
        change blue_steps by -5
        change pen size by 1
      else
        turn pick random 1 to 360 degrees
    wait 0 seconds
```

The image shows a Scratch code editor with a script for a microbe battle. The script starts with a 'when clicked' event, followed by 'go to x: pick random -100 to 100 y: pick random -100 to 100'. It then sets 'red_steps' to 25, erases all, sets pen size to 1, sets pen color to red, and pens down. A 'forever' loop contains: 'move pick random 1 to red_steps steps', 'if on edge, bounce', 'if distance to Blue < 50 then' (with a 'turn 180 degrees' block), 'else' (with 'if touching color blue ? then' containing 'change red_steps by 5', 'change blue_steps by -5', and 'change pen size by 1'), and 'else' (with 'turn pick random 1 to 360 degrees'). The loop ends with 'wait 0 seconds'.

Microbe battle

Scratch project

Level up!

- Create your own project using 20 lines or less.
- Look at your previous projects to see how you can make them more efficient by reducing the number of blocks

Notes

Code Playground

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