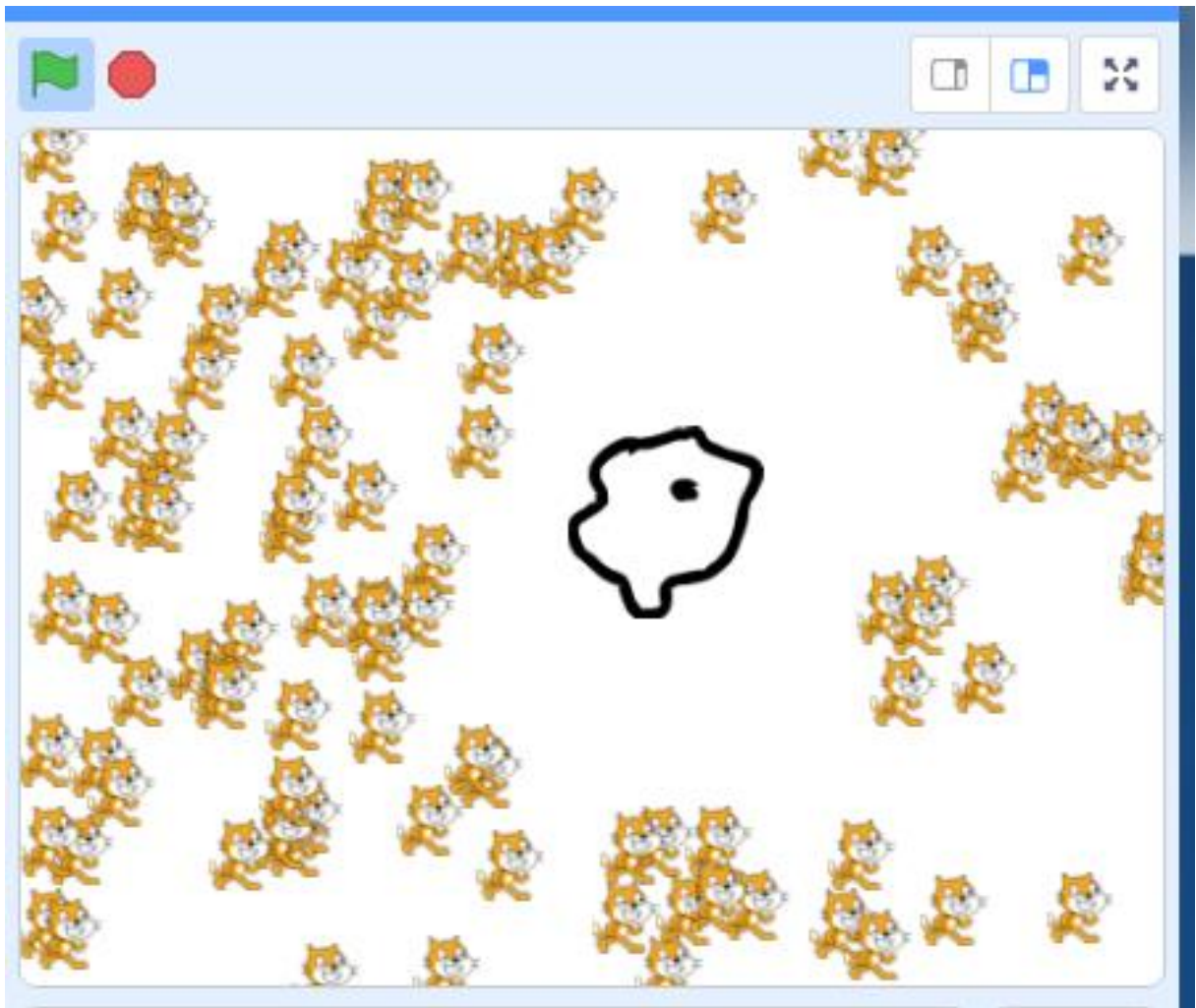


Step by Step Scratch Tutorial – Infection Game

Create sprites and a level for an infection game

Bonus: add lives, extra levels

Programming difficulty: medium



First: Code your cat sprite to multiply exponentially

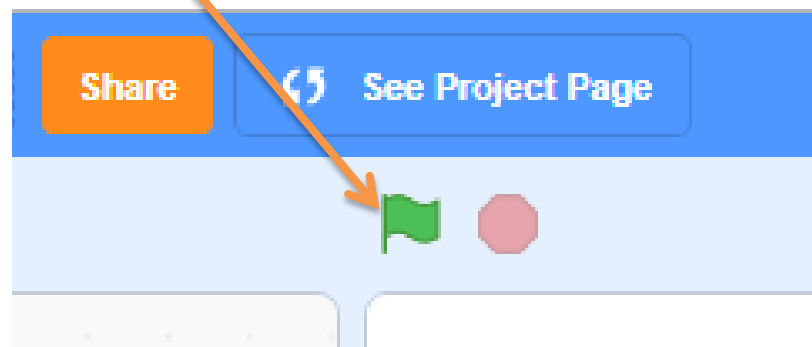
1

Open Scratch and put this code in your cat sprite 1.



2

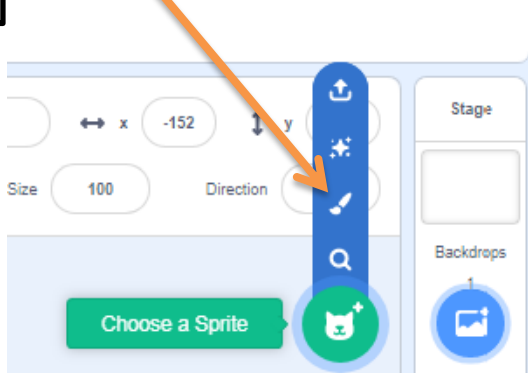
Click the green flag to play-test your code. Your cat should multiply exponentially when you press the spacebar, and the clones should disappear when you hit green flag again.



Next: Paint a new white blood cell Sprite

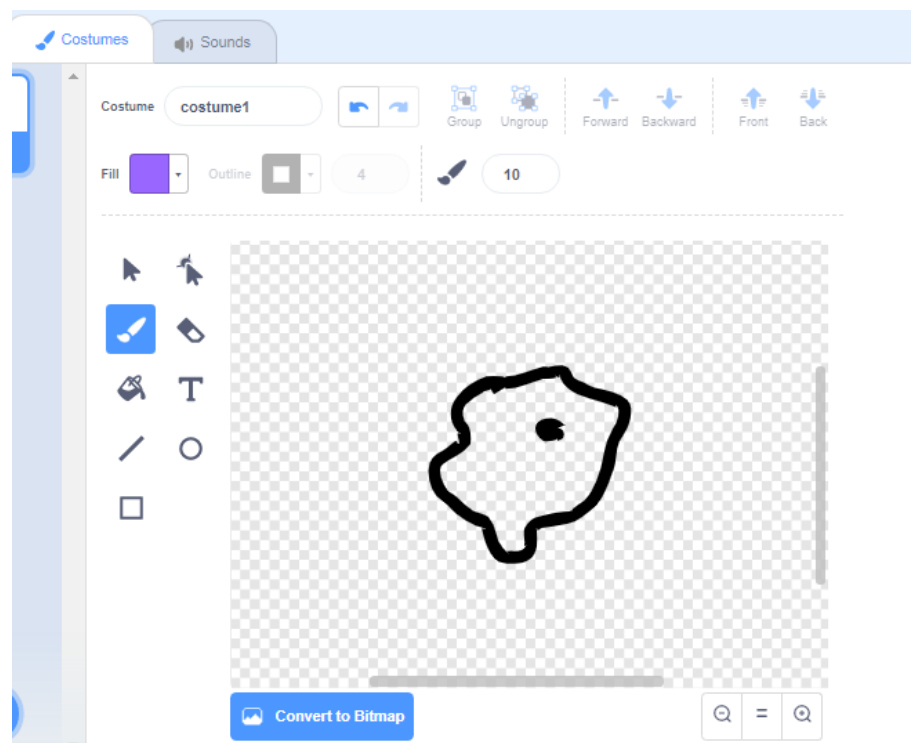
3

Click paint a new sprite



4

Draw a Macrophage!



5

Add all of this code to your Macrophage sprite to make it move!

The image displays four Scratch code snippets arranged in a 2x2 grid, each with a green label above it. An orange arrow points from the label '5' to the top-left snippet.

- Code for moving right:** Starts with 'when green flag clicked', followed by a 'forever' loop containing an 'if key right arrow pressed?' block and a 'change x by 5' block.
- Code for moving left:** Starts with 'when green flag clicked', followed by a 'forever' loop containing an 'if key left arrow pressed?' block and a 'change x by -5' block. This snippet is highlighted with a yellow border.
- Code for moving up:** Starts with 'when green flag clicked', followed by a 'forever' loop containing an 'if key up arrow pressed?' block and a 'change y by 5' block.
- Code for moving down:** Starts with 'when green flag clicked', followed by a 'forever' loop containing an 'if key down arrow pressed?' block and a 'change y by -5' block.

6

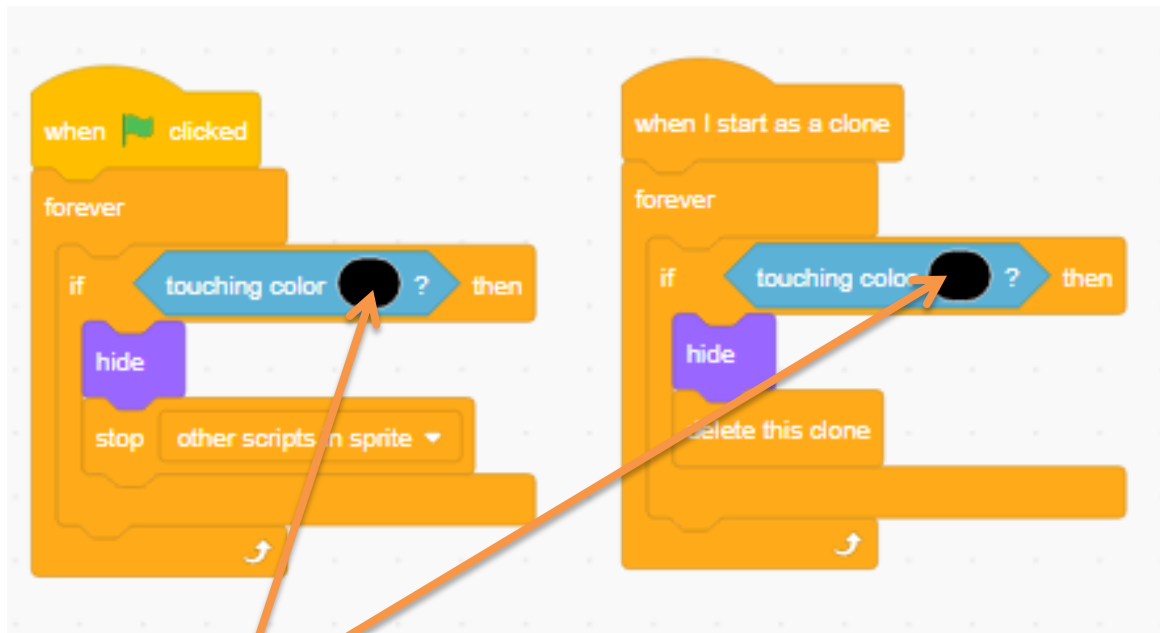
Test your code again to see if the white blood cell moves correctly! Make sure down arrow and left arrow have negative numbers.

The image shows a portion of the Scratch interface. At the top, there are two buttons: 'Share' (orange) and 'See Project Page' (blue). Below these buttons, there are two icons: a green flag and a red octagon. An orange arrow points from the text in step 6 to the green flag icon.

Next: Add code so the cats can disappear

6

Click back to your cat sprite and click the “Code” tab, and add this final code to make your cats be able to be eaten.



7

Make sure these touching colors are the same color as your Cell sprite!

8

Test your game one final time and play with a friend!

9

Bonus: Draw or import a cool background for your game!