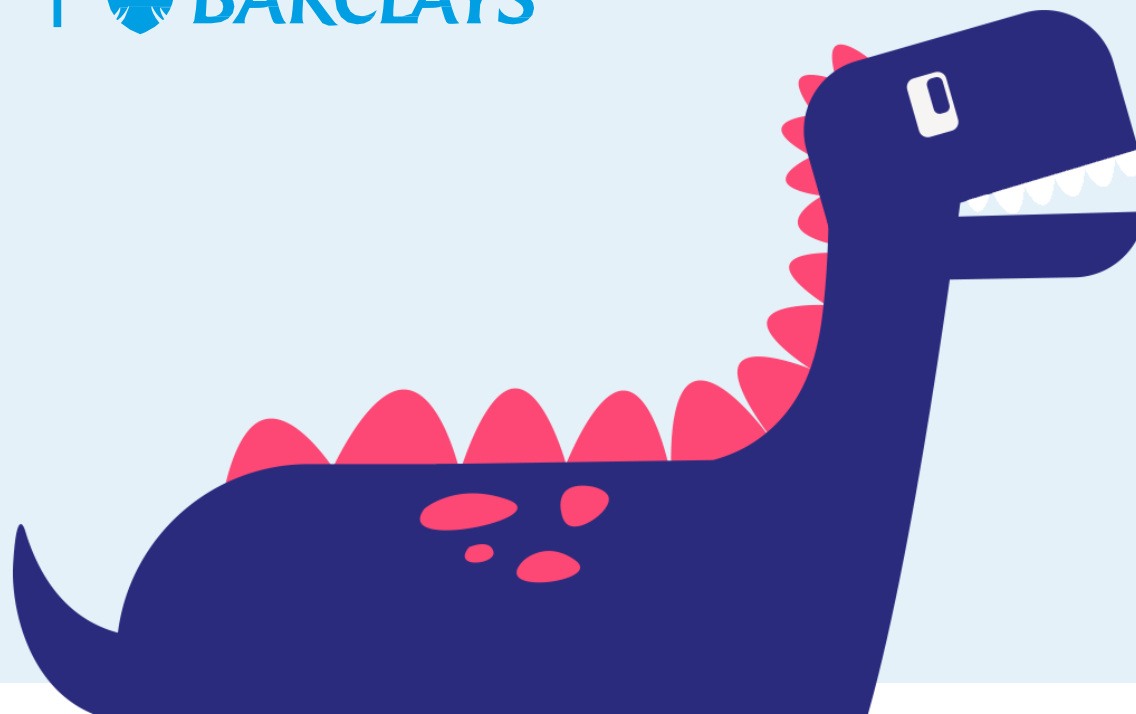


Student workbook

# Super scribbles

Code Playground



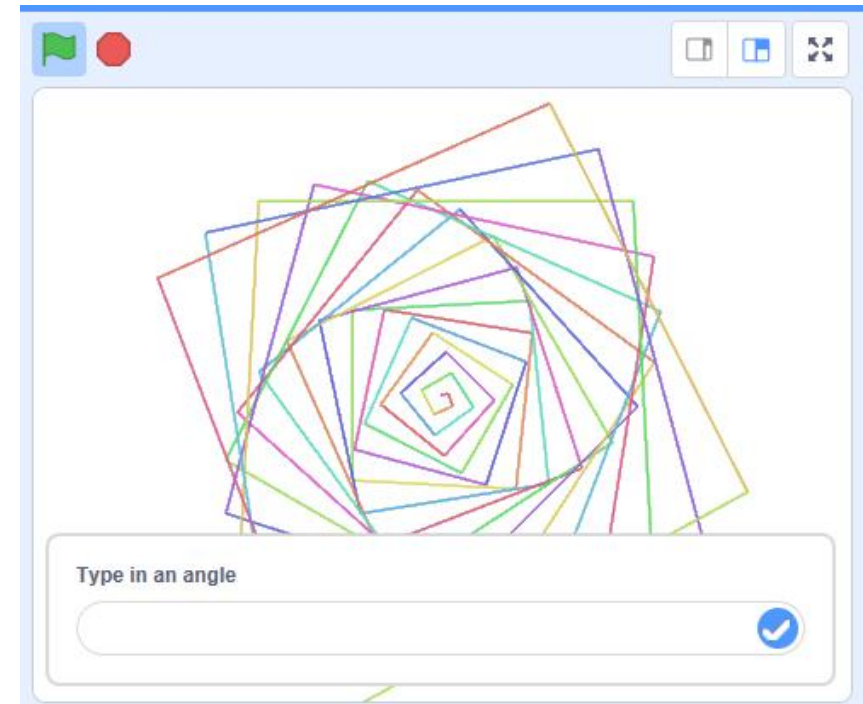
# Super scribbles

Code Playground Live

We're trying to draw interesting patterns using variables and the pen extension. Can you help us fix our code? Search for 'Super scribbles' on the Scratch website and find the project created by Code Playground to get started.

This project is designed for Scratch 3.0 and will show you the basics of using variables.

Hope you enjoy the project!



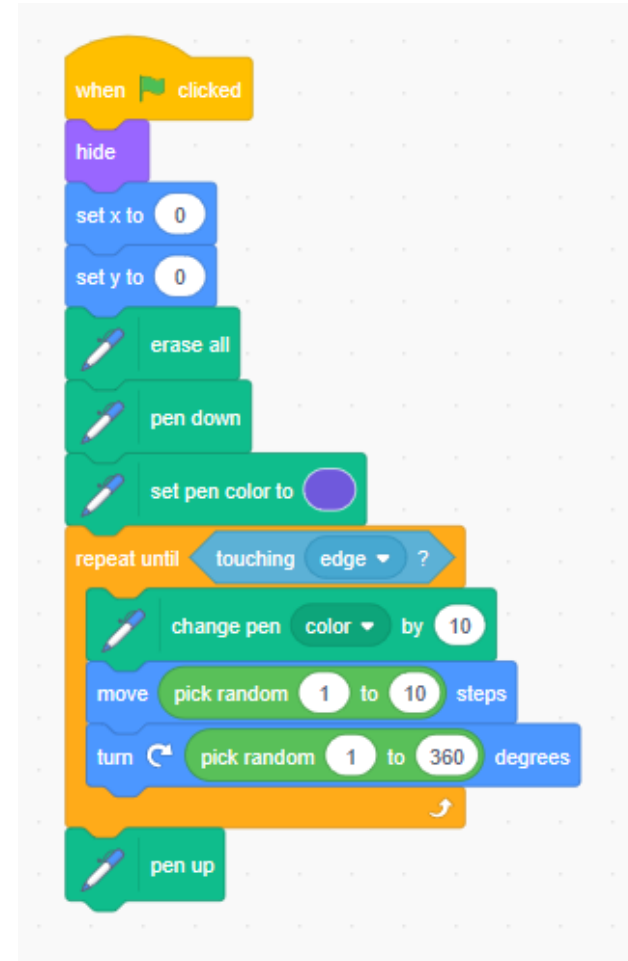
# Super scribbles

Code Playground Live

## Step 1

We've already set up most of the game for you, but we need to finish coding the cat sprite. We need the cat to help us draw today, but you won't see it in your display so that it doesn't get in the way of your patterns.

We've set up this code to help draw some colourful and interesting patterns. Click on the green flag above the display to find out how it works



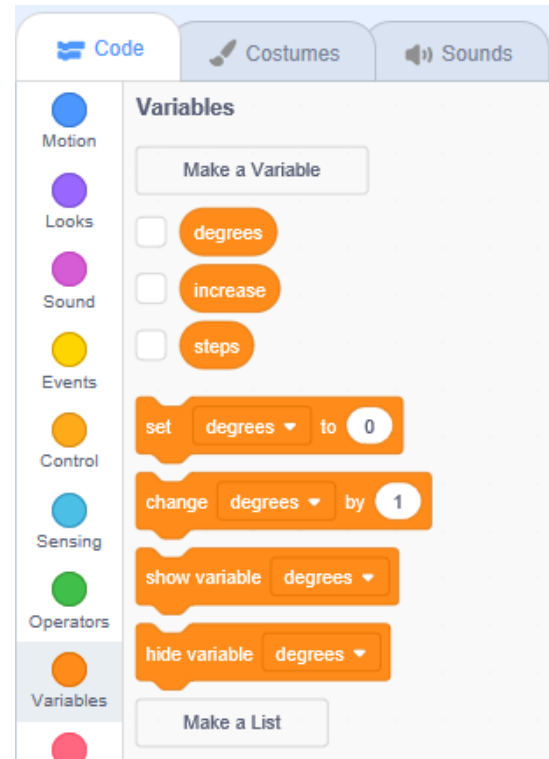
# Super scribbles

Code Playground Live

## Step 2

We need to fix our code so that we can turn our random scribbles into beautiful patterns. This is called debugging.

This is where variables come in handy. We've already prepared three variables for you to use in this project and we've named them 'degrees', 'increase' and 'steps'.

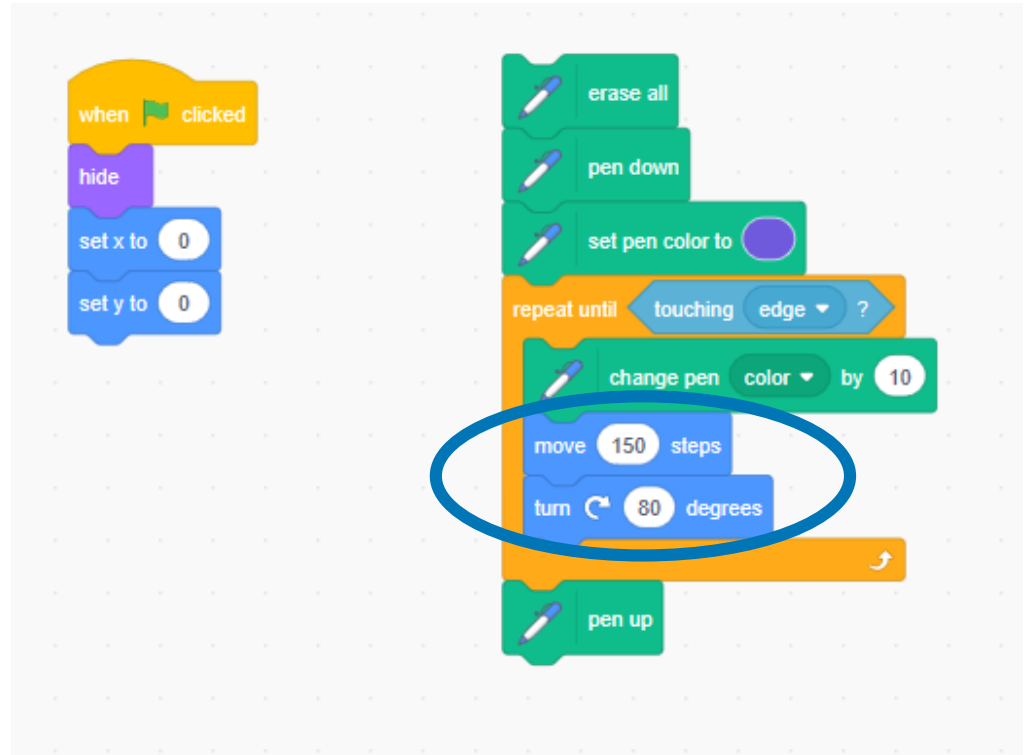


# Super scribbles

Code Playground Live

## Step 3

Separate your code as shown here and remove the 'pick random' blocks so we can add some new blocks.



# Super scribbles

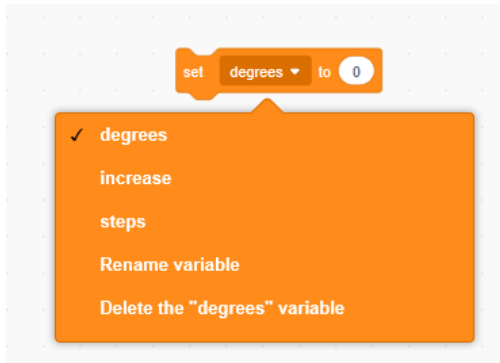
Code Playground Live

## Step 4

Add in the extra blocks shown here from the 'variables' and 'sensing' tabs, and put your script back together.

Press the green flag again and see what happens this time! Enter the value '87' for the angle, and '4' for number of steps.

\*\*Top tip – change the variable your using by selecting from the drop down menu

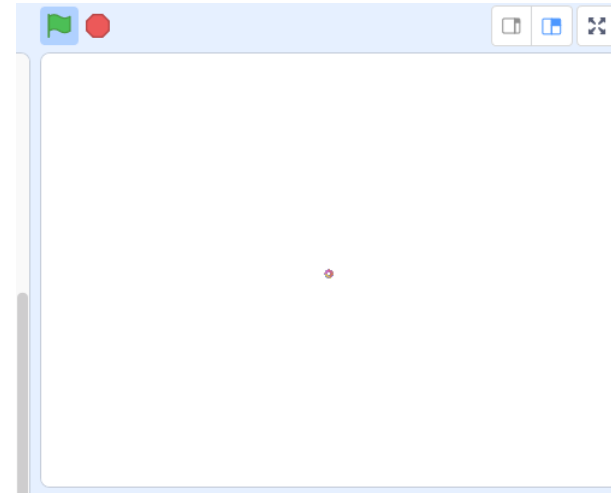
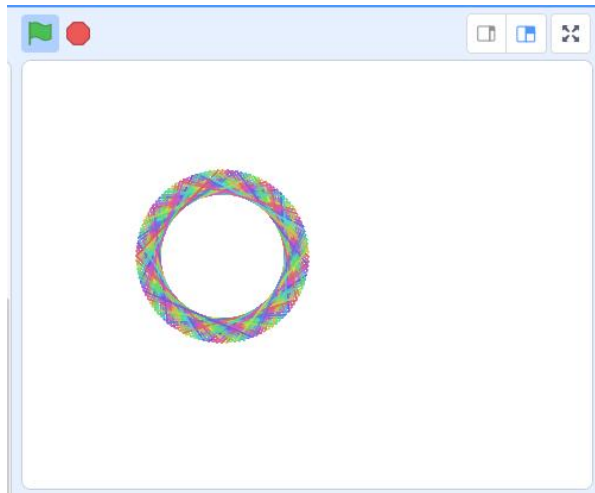


# Super scribbles

Code Playground Live

## Step 5

This time, we don't get random colourful scribbles. We have what looks like a tiny dot in the middle of our display. We've created a pattern but it's just too small to see!



Try the project again, and this time let's make our pattern bigger by increasing the number of steps to 100. You can keep the angle the same and type in 87 degrees. You should end up with something that looks a little bit like this.

# Super scribbles

Code Playground Live

## Step 6

Add the final 'increase' variable so that our patterns grow bigger and bigger until they reach the edge of our display.

Now we're ready to play!

Keep trying your project with different values for angle and steps to see what patterns you can create.





# Super scribbles

Code Playground Live

## Level up!

Can you use this project to design a screensaver?

You'll need to think about:

- How to make the project run continuously (without stopping)
- What happens when the pattern reaches the edge of the screen?
- Using functions to make your code more efficient (you could use our 'Functional functions' live video and workbook to help)

# Notes

## Code Playground