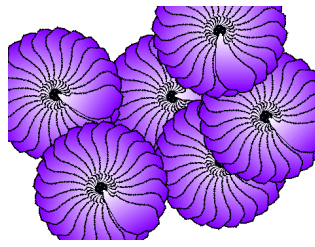
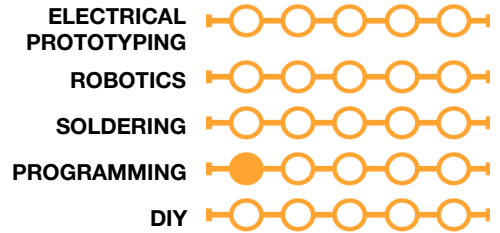


# Scratch Art 03

Inspired by the works of TurtleArt - an extension of Logo and the work done by Seymour Papert - we have created a series of activities focused on the creation of art using a simple programming structure. Scratch is a simplified graphical programming environment that mimics a lot of the features of TurtleArt. We can draw lines, change colors, shades, and pen widths -- all to create great geometric art.



**SCRATCH**  
SKILL REQUIREMENTS  
DIFFICULTY 1-5



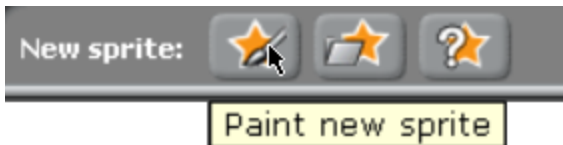
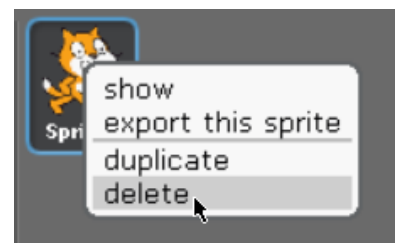
## MATERIALS LIST

- Computer
- Scratch
- PicoBoard (optional)

### STEP 1: Creating your sprites

For this activity, we are going to delete the default Scratch cat and replace it with a new sprite. To do this, right click on the cat in the lower-right and select delete.

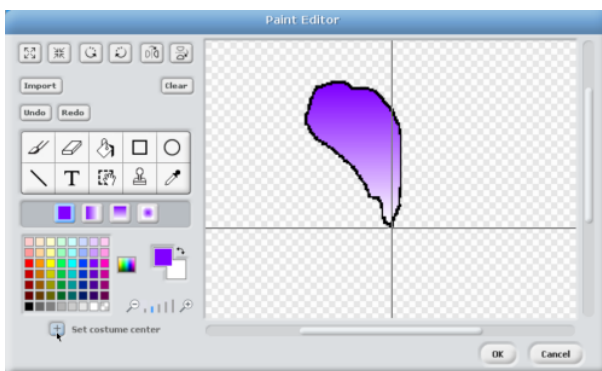
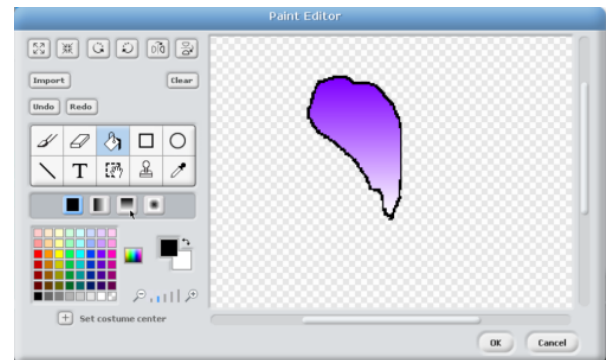
Now, on the bar just above this, click on the paintbrush or the “Paint new sprite” icon.



Use this paint window to create a flower petal. Draw any shape you like, feel free to express yourself! A neat trick is to use the fill bucket and the gradient option. This creates a nice light to dark effect.

### STEP 2: Setting the costume center

So that we can make a flower, we need to set the costume center to be where the center of the flower would be. Set it near the bottom edge.



### STEP 3: The Code

We are going to use the “Stamp” feature and rotate our flower petal. The “Stamp” block is under the **Pen palette**. Change the rotate angle and number of repeat loops to create your flower!

### STEP 4: Let it run!

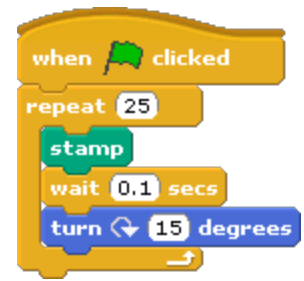
Click on the green flag to run the script. Move the sprite around the screen and run it again to create new flowers!

### STEP 5: Adding a little variation?

Under the **Looks Palette**, you'll find the **set [color] effect to** block. Use this with the PicoBoard sensor value block. Each time you run the your script, move the slider around to get a slightly different different color.

### STEP 6 : Save / Capture

Right click on the stage and select “save picture of stage…” This will prompt you to save a copy of the background as a GIF file.



## TAKING IT FURTHER

- Use random block to start the sprite at a random place on the screen (x: -240 to +240; y: -180 to +180) or start with a random color. Colors are specified on a range of 0 - 200.
- Draw a second flower petal and animate it. Create a bouquet of flowers on the screen!
- Can you figure out how to use the pen feature to draw a stalk for each flower? (Hint: Start the sprite at the bottom of the screen (x: anything, y: -160), use the **[pen down]** block, and set the **pen color** to **green**, and the **pen size** to at least 10.

