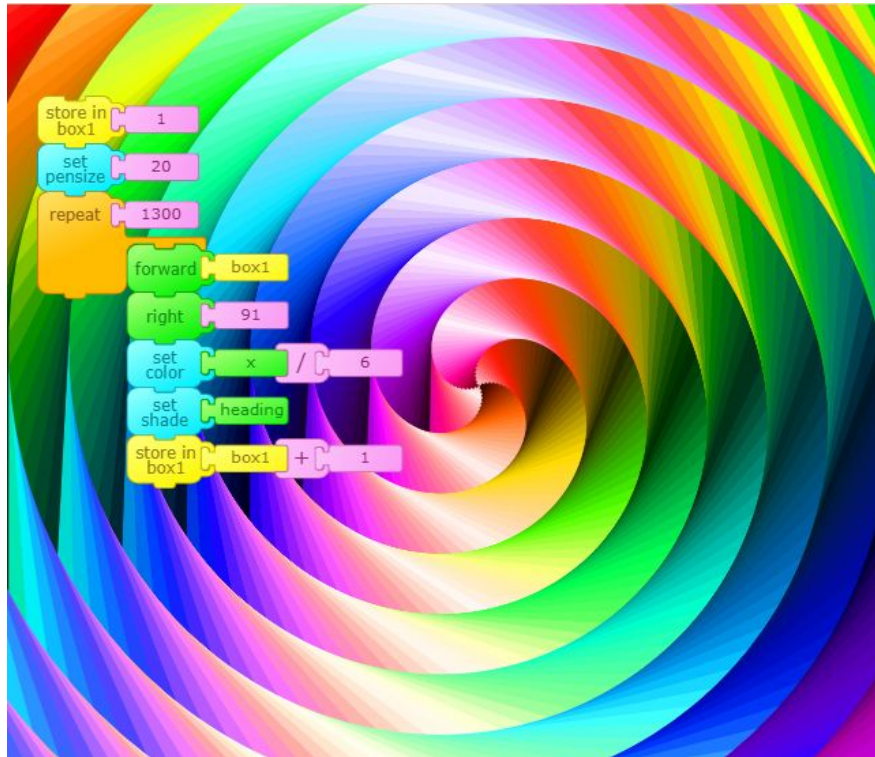




# **Digital Quilt**

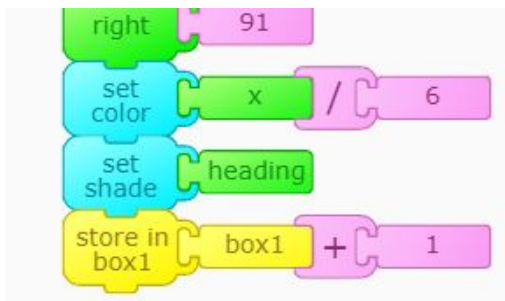
# **TurtleArt Project Starters**

# Advanced: Rainbow Spiral



Create a variable using “**box 1**” that will increase to create a spiral shape. The turtle moves forward the number or steps stored in “**box 1**,” then turns **right**. At the end of the **repeat**, reset “**box 1**” to its current value plus 1. Repeat the sequence many times to fill the screen.

The turtle’s **pen size** is set to 20, so the turtle draws thick lines that will cover the whole screen with color.



The **color** is set to the turtle’s x position using the **x-coordinate** block found in the green section. In this example, the x position is divided by 6.

The **shade** is determined by the current **heading** or the direction in which the turtle is facing.

### TRY THIS!

- Experiment with the way the color is determined. What happens if you change the 6 to a different number? What happens if you multiply instead of divide?
- Change the pen size to get a better idea of what the turtle is drawing in order to create this beautiful spiral.
- Play with the number of times the turtle repeats the sequence.

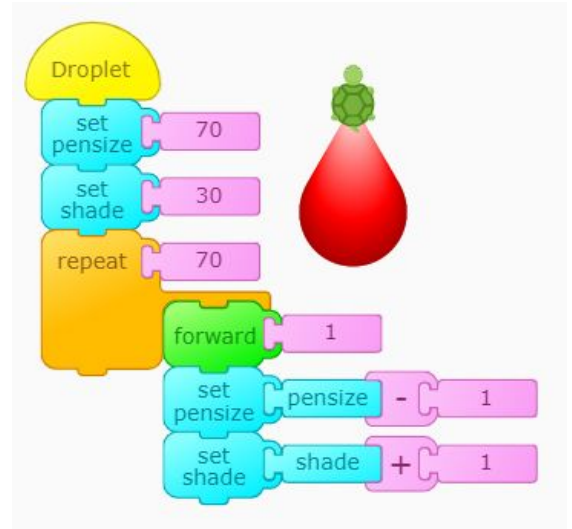
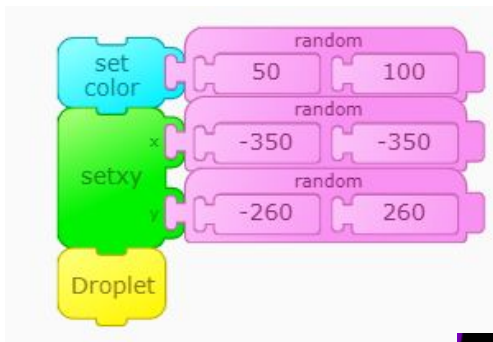


## TurtleArt Project Starter

# Advanced: Random Raindrops

Create a procedure for the turtle to draw a droplet. Use a yellow “hat” block and click to rename it, then attach the droplet code.

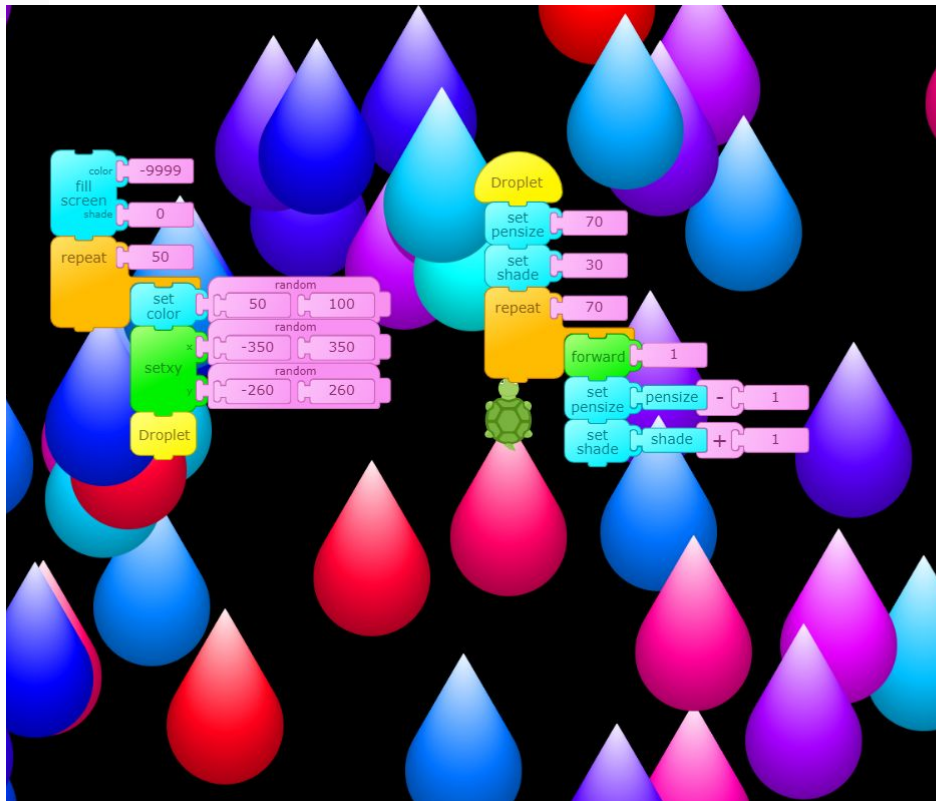
To create a droplet, the turtle starts with a large **pen size**, and the **pen size** decreases as the turtle moves **forward**. This creates a droplet shape. At the same time, the **shade** value increases to make the droplet appear lighter at the top.



In a separate block of code, use the **random** block to create a droplet in a **random color** and in a **random position**. This block will choose a random number within the range provided.

The **fill screen** block sets the background color to black.

The random droplet code is **repeated** 50 times to create 50 droplets on the screen.



### TRY THIS!

- What other shapes can you get the turtle to draw instead of droplets?
- Try changing the numbers in the **random** ranges.
- Add **wait** blocks to watch the turtle draw droplets using a straight line.



