Drawing with Turtle

September 5, 2024

Students will be able to:

- Navigate the Wipple Playground

- Move the Turtle to draw a shape

- Use the `repeat` command to make a spirograph

Today's plan:

- **Warm up:** Spirograph

- **Guided practice:** Setting up Wipple

- **Turn and talk:** The `repeat` command

- **Partner activity:** Spirograph

Warm up: Spirograph

- Work with your table to draw a shape using the spirograph.

- Discuss: How often does the shape repeat?

- Brainstorm instructions so another table can draw your shape.

- Exchange instructions with the table on your left. Were your instructions effective? How could you make your instructions easier to understand?
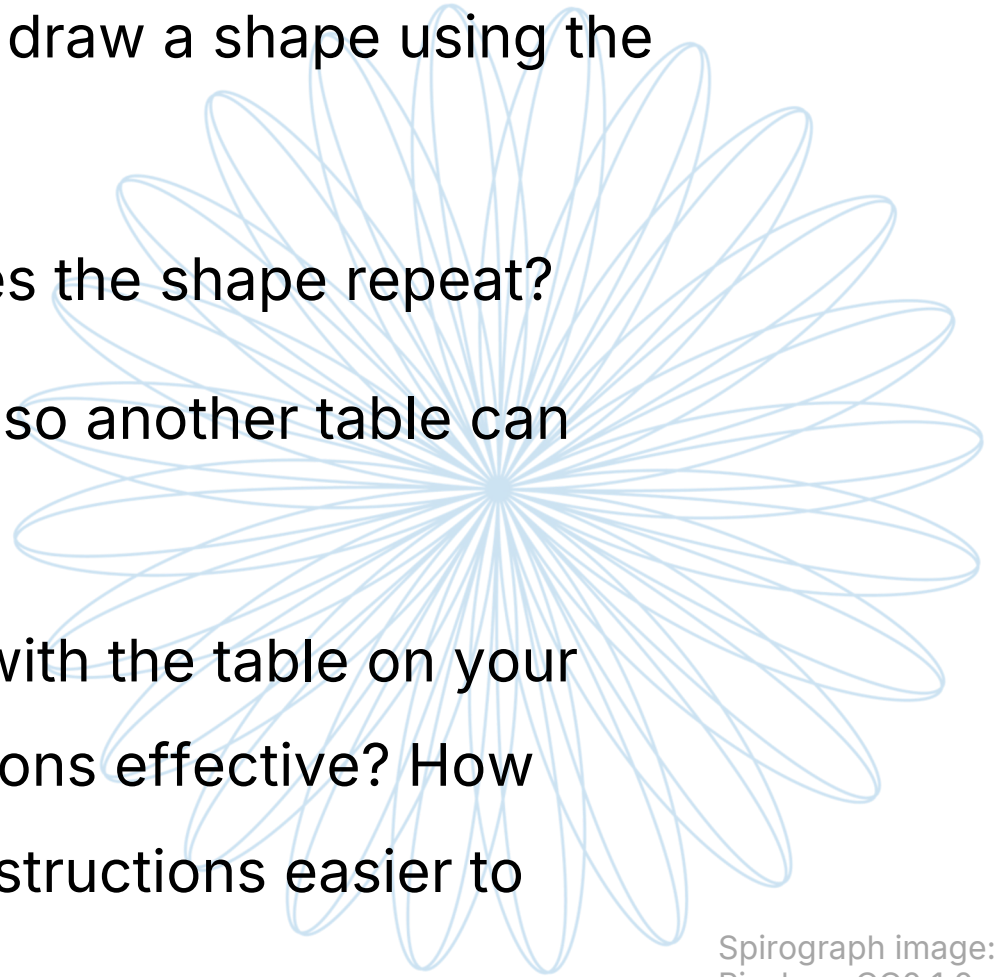
Guided practice: Setting up Wipple

- You can make a computer draw your spirograph using the same instructions!

- **Work with a partner**

- **Open your computers and go to wipple.org**

Learn to code with Wipple

Start coding now →

Click the button

Guided practice: Setting up Wipple

Continue as Guest

Guided practice: Setting up Wipple
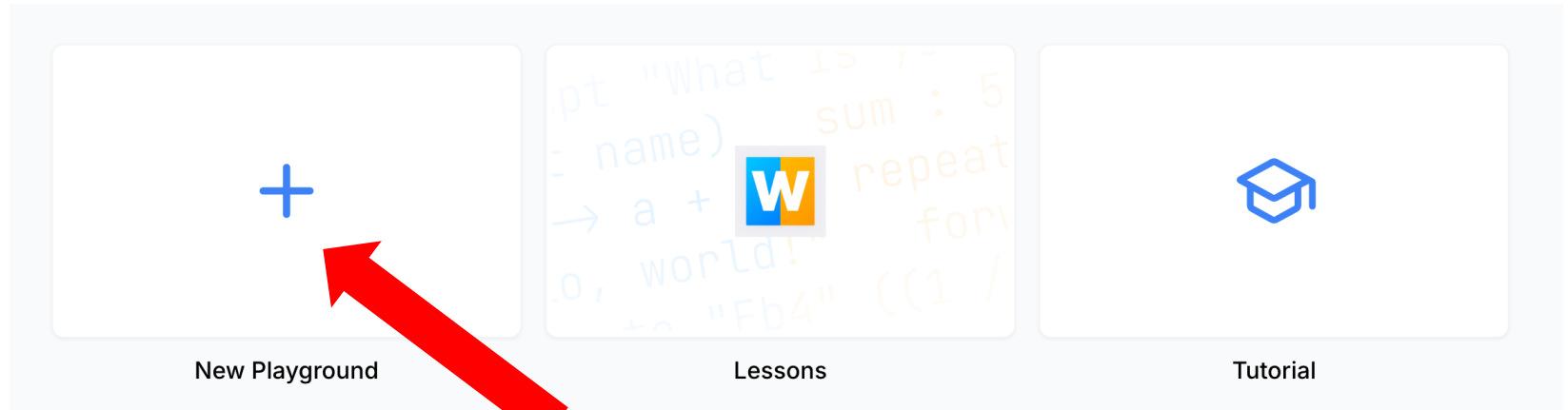
New Playground

Guided practice: Setting up Wipple

Turtle

What would you like to create?

Blank
Create a program from scratch.

Turtle
Draw graphics on the screen.
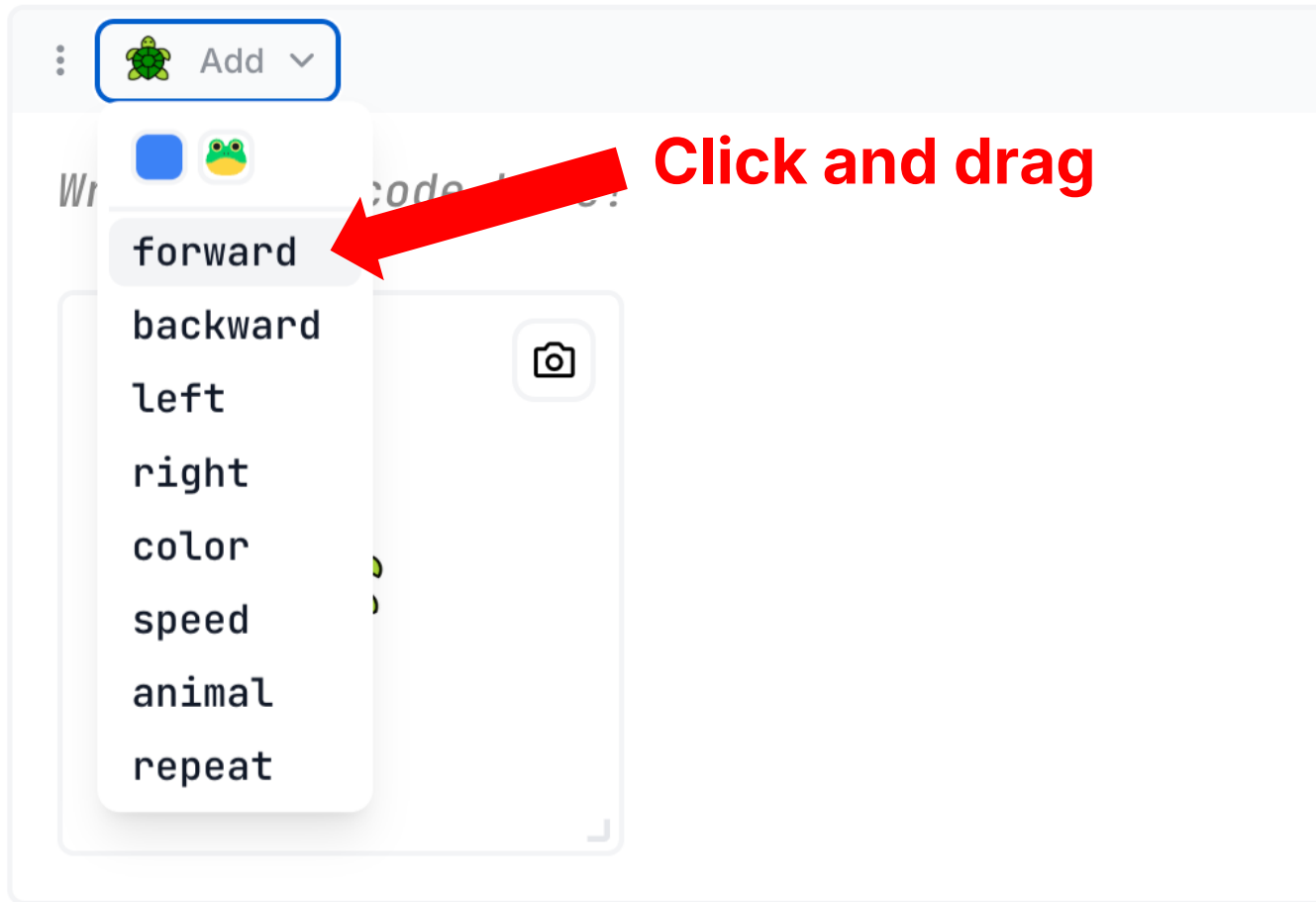
Music
Make a musical composition.

Math
Plot functions on a graph.

Game
Create a video game.

Physics
Experiment with physics.

Text
Write text alongside your code.

Guided practice: Setting up Wipple
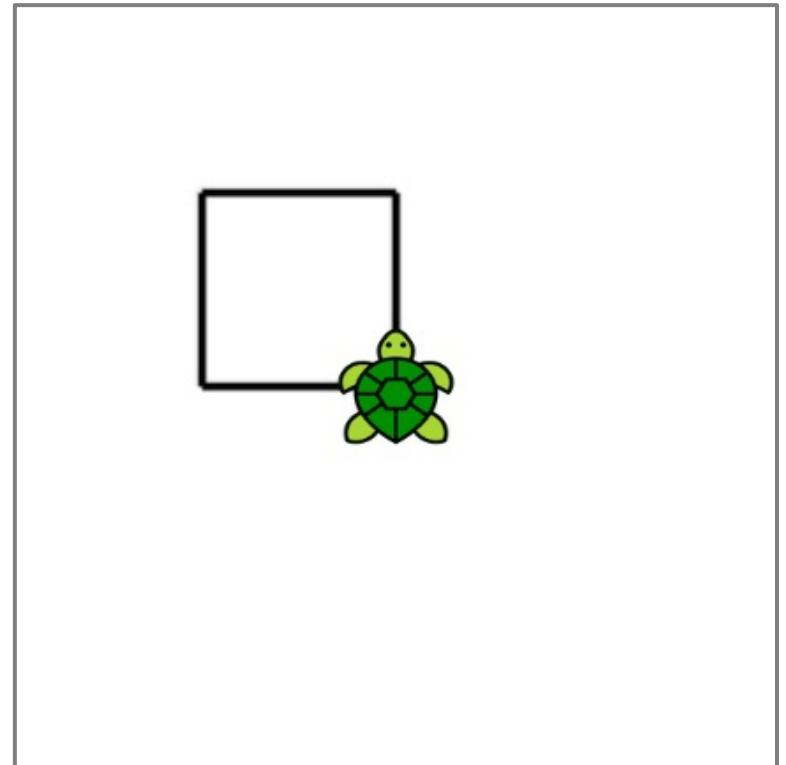

Click and drag

Guided practice: Setting up Wipple

1. Click "Start coding now"

2. Click "Continue as Guest"

3. Click "New Playground"

4. Click "Turtle"

5. Click "Add" and drag
   `forward` into code box
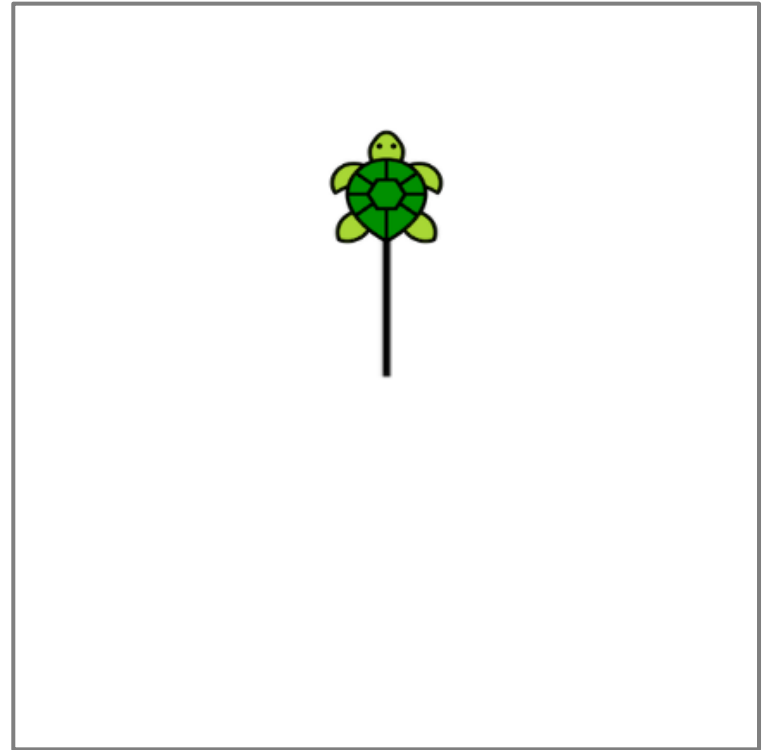
Guided practice: Setting up Wipple

- **Try all the commands:**

  - `forward`

  - `backward`

  - `left`

  - `right`

- **Can you make a square?**

Turn and talk: The `repeat` command

Read your instructions for drawing a square. How many instructions do you have? How could you use fewer instructions?
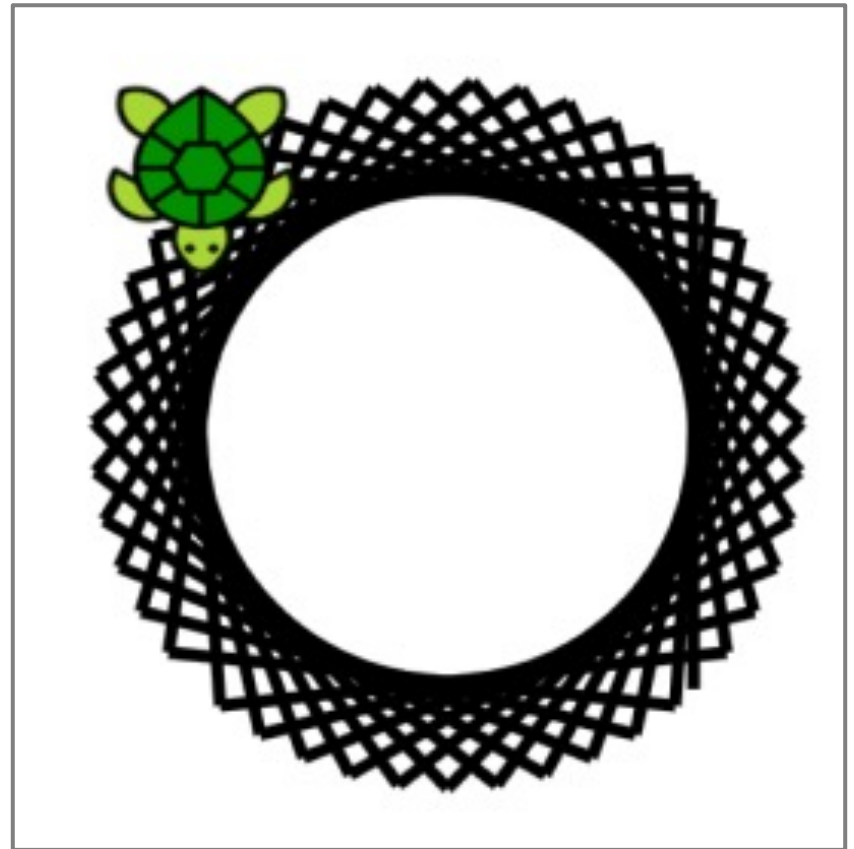
Listen for: repeat, times, again

The repeat command

🔁 **repeat** (4 **times**)

{ means **begin**, } means **end**

Partner activity: Spirograph

- Use the commands you learned today and **`repeat`** to draw a spirograph!

- Work with your partner

- Click 📷 to save a photo when you're done

- **Tip:** Drag speed into your code to make the turtle go faster

Exit ticket (on your own)

Upload your photo

How many `times` did you `repeat` to draw your spirograph?

Could you draw your spirograph *without* `repeat`? Why or why not?