

Overview

In this lesson, you will learn how to change basic turtle settings. You will control how the turtle **looks**, how **big** it is, how **fast** it moves, and what **color** it appears on the screen. These settings affect the turtle itself, not the lines it draws.

Important Information

The turtle is an object, and many of its properties can be changed using built-in methods. Changing these settings helps make programs easier to understand and more visually interesting.

Changing the Turtle's Shape

The turtle can appear in different predefined shapes. You can change the shape using:

```
t.shape("shape_name")
```

Python's turtle library includes these built-in shapes:

- "classic" – the default arrow-style turtle
- "arrow" – a sharper arrow pointer
- "turtle" – a turtle icon with legs and a shell
- "circle" – a circle
- "square" – a square
- "triangle" – a triangle

The shape only affects how the turtle looks, not how it moves.

Changing the Turtle's Color

You can change the turtle's color using:

```
t.color("color_name")
```

Examples of common color names include:

- "black"
- "red"
- "blue"
- "green"
- "purple"
- "orange"

The color you set applies to the turtle itself and (later) to the lines it draws.

Changing the Turtle's Size

You can resize the turtle using:

```
t.shapesize(stretch_wid, stretch_len)
```

- **stretch_wid** controls the height
- **stretch_len** controls the width

Example:

- `t.shapesize(2, 2)` makes the turtle twice as large
- `t.shapesize(1, 3)` makes it wider but not taller

The size values are **scale factors**, not pixels.

Changing the Turtle's Speed

You can control how fast the turtle moves using:

```
t.speed(value)
```

Valid speed values are:

- **1** → slowest
- **10** → fastest animated speed
- **0** → **instant movement (no animation)**

Important notes:

- Lower numbers move more slowly.
- Higher numbers move faster.
- Speed **0** ignores animation and is the fastest possible option.

Set Up

Create a new Python file called `turtle_settings.py`.

Copy, Change, Challenge

Copy

Copy and run the following code.

```
import turtle  
  
t = turtle.Turtle()  
  
t.shape("turtle")  
t.color("blue")  
t.shapesize(2, 2)  
t.speed(5)  
  
turtle.done()
```

Observe how the turtle looks and how quickly it moves.

Change

Modify the program so that:

- The turtle uses a different shape
- The turtle is a different color
- The turtle is either taller or wider than before
- The speed is noticeably faster or slower

Run the program again and observe the changes.

Challenge

Create a turtle that:

- Uses the fastest possible speed
- Is much larger than the default size
- Uses a shape that is **not** "classic"

Be ready to explain which settings you changed and what each one does.