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**Draw with Code**



**What is Python?**

Python is a widely used high-level, general-purpose, dynamic programming language. Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than possible in other coding languages.

The **Turtle** module allows us to code in a visual manner, making art and drawing pictures with commands like: forward, backwards, right, left, color, shape.

**Today we’ll be practicing using this website:** <https://trinket.io>



**Activity 1**

import turtle

wn = turtle.Screen()

tommy = turtle.Turtle()

tommy.shape("turtle")

tommy.forward(50)

tommy.right(90)

tommy.forward(50)

tommy.right(90)

tommy.forward(50)

tommy.right(90)

tommy.forward(50)



**Activity 2**

mabel = turtle.Turtle()

mabel.shape("arrow")

mabel.right(180)

mabel.forward(80)

mabel.right(120)

mabel.forward(80)

mabel.right(120)

mabel.forward(80)

mabel.right(120)

mabel.forward(39)



**Activity 3**

tommy = turtle.Turtle()

tommy.shape("turtle")

tommy.color("purple")

for i in [0,1,2,3]:

 tommy.left(90)

 tommy.forward(50)



**Activity 4**

d = turtle.Turtle()

d.shape("turtle")

d.color("red")

d.circle(50)



**Activity 5**

e = turtle.Turtle()

e.shape("turtle")

e.color("green")

e.up()

e.forward(100)

e.down

for i in range(5):

 e.forward(50)

 e.right(144)



**Challenges!**

See if you can make some turtles draw:

* Olympic Rings
* Name
* Smiley face
* Many sided shape



**Learn More**

**Online Resource List:** <http://wvml.ca/code-art>

Python Turtle Library: <https://docs.python.org/3/library/turtle.html>

Code Academy <https://www.codecademy.com/>

Hour of Code & Code.org <https://code.org/>

Paul Ford “What is Code” <http://www.bloomberg.com/graphics/2015-paul-ford-what-is-code/>