



Turtle Power — Notes for Club Leaders



Introduction:

This project teaches Python **for** loops, through the use of the Python turtle module. Shapes are drawn using the turtle, and then loops are demonstrated as a way of drawing shapes more efficiently.

Resources

For this project, Python will need to be installed. It is recommended that version 3.2 of Python is installed.

You can find a completed version of this project's challenges by clicking the 'Download Project Materials' link for this project, which contains:

- DrawingShapes-square.py
- DrawingShapes-triangle.py
- LoopyShapes.py
- DrawingPatterns.py
- VariablesAndShapes.py

Make sure that each child has read and write access to their own copy of these resources.

Learning Objectives

- Python 'turtle' module
- **for** loops

Challenges

- Drawing shapes - use of the turtle commands to draw shapes.
- Loopy shapes - using loops to efficiently draw geometric shapes.
- Drawing patterns - using loops to draw complex patterns.
- Variables and loops - using calculations and variables in drawing geometric shapes.

Frequently Asked Questions

- Depending on where the file is saved, naming a program 'turtle.py' can cause problems, as it clashes with the turtle module, which is also called 'turtle.py'.
- There can sometimes be problems when trying to close the turtle drawing canvas. The line `done()` at the end of each program should help, but if the window freezes you can close the shell window, which should terminate the program.