Python SKO

BASICS

```python
import turtle #imports all the turtle related commands
turtle.speed("fastest")#sets the speed of the turtle
turtle.shape("turtle")#sets the shape of the turtle
turtle.width(5)#sets the width of the turtle
turtle.color("green")#sets the colour of the turtle

turtle.forward (100)#sends the turtle forward number of pixels in the brackets
turtle.backward (100)#sends the turtle backwards number of pixels in the brackets
turtle.left (90)#turns the turtle left the number of degrees in the brackets
turtle.right (135)#turns the turtle right the number of degrees in the brackets
turtle.penup()#lifts the pen up
turtle.pendown()#lifts the pen down
```

PATTERNS

```python
for i in range (0, 6):#repeats the indented code number of times in the brackets
    turtle.forward (100)#going forward then turning right 6 times will make a hexagon
    turtle.right (60)#we get the 60 degrees by dividing 360 by 6
```

"Teaches" Python how to draw a triangle. This is called a procedure. This procedure is called triangle

```python
def triangle():
    for i in range (0, 3):
        turtle.forward (100)
        turtle.right (120)
```

Notice how the for loop has been indented so that it is part of the procedure. Also notice how the forward and right commands are still indented so that that they are part of the for loop.

```python
for i in range (0, 15):
    triangle()
    turtle.right (24)
```

This "calls" or runs the procedure. As it is part of the for loop it does this 15 times. After each triangle it turns right, making a circular pattern of triangles.

DRAWING PICTURES

```python
turtle.penup()#lifts the pen up
turtle.goto (10, -50)#goes to these co-ordinates (x first, y second)
turtle.pendown()#puts the pen back down, ready to draw in the new location
```