

# Programming- Repetition in Shapes

## Construction

### Prior Knowledge

Year 3: Sequence in music, events and actions.

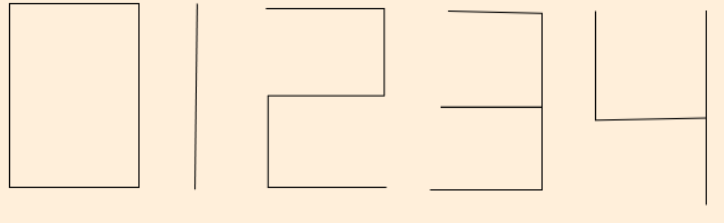
Year 2: Robot algorithms. An introduction to quizzes.

Year 1: Moving a robot. Introduction to animation.

### Future Knowledge

Year 5: Selection in physical computing. Selection in quizzes.

Year 6: Variables in games. Sensing.



### Key Vocabulary

**Tier 1:** Turtle

**Tier 2:** Program, commands, procedure

**Tier 3:** Code snippet, debug, count-controlled loop

### My Component Knowledge:

Lesson 1: I know that accuracy in programming is important.

Lesson 2: I can create a program in a text-based language.

Lesson 3: I can explain what repeat means in every day tasks and in sequencing.

Lesson 4: I can modify a count-controlled loop to produce a given outcome.

Lesson 5: I can decompose a task into small steps.

### My Composite Knowledge:

I can use basic commands to draw shapes by repeating instructions.

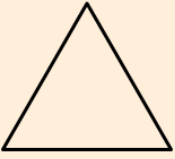
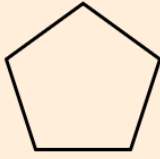
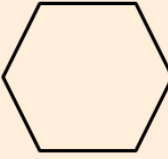
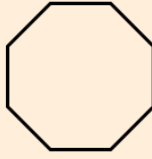
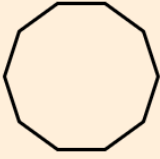
### My Powerful Knowledge:

I can use a text-based programming language to create programs by planning, modifying and testing commands to create shapes and patterns.

```
FD 100 RT 90
FD 200 RT 90
FD 100 RT 90
FD 200 RT 90
```

What is a  
code  
snippet?

What comes next in this repeating pattern?

Triangle	Pentagon	Hexagon	Octagon	Decagon
				
120°	72°	60°	45°	36°