

Programming—Repetition in Shapes

Innovation & Change

Introducing new ways and methods to make something better or easier. To make something different.

Prior & Future Knowledge

Sequence in music.

Events and actions.

Robot algorithms.

An introduction to quizzes.

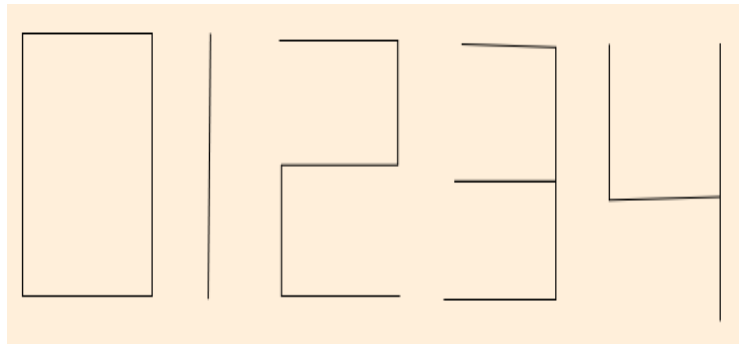
Moving a robot.

Introduction to animation.

Selection in physical computing.

Selection in quizzes.

Variables in games.
Sensing.



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.

Key Vocabulary

Tier 1: turtle

Tier 2: program, commands, procedure

Tier 3: code snippet. Count-controlled

What is a code snippet?

```

1 <div class="container">
2
3 <div class="box">
4 <h2>The quick brown fox jumps over the lazy dog</h2>
5 </div>
6
7 <div class="box">
8 <pre>
9   The quick brown fox
10  jumps over the lazy dog
11 </pre>
12 </div>
13
14 </div>

```

FD 100 RT 90

FD 200 RT 90

FD 100 RT 90

FD 200 RT 90

What comes next in this repeating pattern?

Triangle



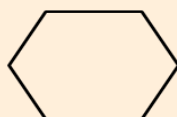
120°

Pentagon



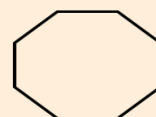
72°

Hexagon



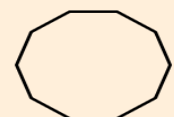
60°

Octagon



45°

Decagon



36°