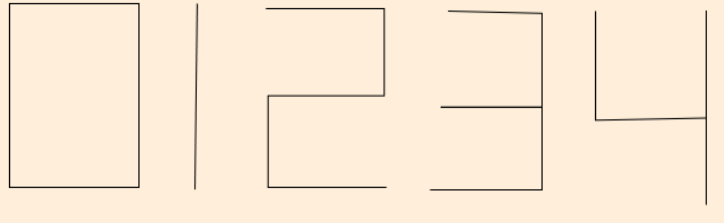


Programming- Repetition in Shapes

Construction

Prior Knowledge

In KS1, the children have studied how to move a robot and learnt about robot algorithms. They have also completed introductions to animations and quizzes. In KS2, they have created media through audio and photo editing and the Year 4 children have sequenced sounds in music and learnt about programming events and actions.



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.

Lesson 6: I can create a program that uses count-controlled loops to produce a given outcome.

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 loop, debug

What is a code snippet?



FD 100 RT 90

FD 200 RT 90

FD 100 RT 90

FD 200 RT 90



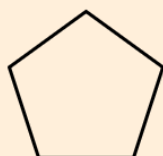
What comes next in this repeating pattern?

Triangle



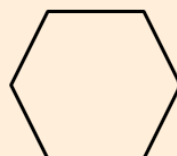
120°

Pentagon



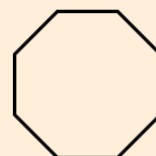
72°

Hexagon



60°

Octagon



45°

Decagon



36°