

SNAIL TRAILS Teaching Guidelines

Subject: Mathematics
Topics: Patterns
Grades: 4 – 7

Concepts:

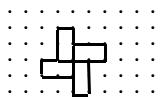
• Pattern

Materials: None

Procedure:

Distribute the handout. Have students read it individually and extend the given pattern as instructed. Circulate and observe as they do so.

Students should end up with a pattern that looks like this, and which is retraced over and over again as the moves are continued.



Discuss the concept of pattern (a rule or plan for making something) and relate it to the rules that created the "snail trail" just completed.

Now have students create their own pattern of moves and the corresponding snail trails.

Patterns should consist of a small number of moves which are repeated, as in the example given.

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Snail Trails

To play "Snail Trails", pretend you are a snail who starts at a point on a grid. You can move forward either 1, 2, 3, or 4 steps, then you must either turn right, turn around, or turn left.

Suppose you are a snail that moves with this pattern:

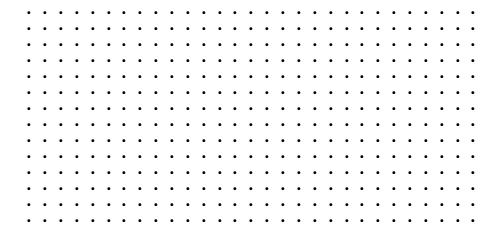
- 1. Take three steps forward, turn right.
- 2. Take two steps forward, turn right.
- 3. Take one step forward, turn right.
- 4. Go to step 1.

After the first 3 moves, your trail would look like this:

After 3 more moves your trail would look like this:

What happens if you take 3 more steps? 6 more steps? 9 more steps?

Make up your own snail trail pattern. Draw your trail on this grid.



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