

Just In Time Quick Check
Standard of Learning (SOL) 1.14

Strand: Patterns, Function, and Algebra

Standard of Learning (SOL) 1.14

The student will identify, describe, extend, create, and transfer growing and repeating patterns.

Grade Level Skills:

- Identify the pattern in a given rhythmic, color, geometric figure, or numerical sequence.
- Describe the pattern in a given rhythmic, color, geometric figure, or numerical sequence in terms of the core (the part of the sequence that repeats).
- Extend a repeating or growing pattern, using manipulatives, geometric figures, numbers, or calculators.
- Create a repeating or growing pattern, using manipulatives, geometric figures, numbers, or calculators (e.g., the growing patterns 2, 3, 2, 4, 2, 5, 2, 6, 2, ...).
- Transfer a pattern from one form to another.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [1.14 – Practical Patterns](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Grade 1 ([Word](#)) | ([PDF](#))
 - Core
 - Pattern: Repeating and Growing
 - Transfer a Repeating Pattern
 - Transfer a Growing Pattern

Supporting and Prerequisite SOL: [1.13](#), [K.12](#), [K.13](#)

SOL 1.14 - Just in Time Quick Check

1. Draw the next three shapes in the following pattern.



2. Fill in the blanks to complete the following pattern.



3. Use linking cubes, pattern blocks, or other materials provided to create a growing pattern.

Explain what makes your pattern a growing pattern. _____

4. Transfer the following numerical pattern to a shape pattern:

6 4 6 3 6 4 6 3

SOL 1.14 - Just in Time Quick Check Teacher Notes
Common Errors/Misconceptions and their Possible Indications

1. Draw the next three shapes in the following pattern.



Some students may struggle to complete a repeating pattern that contains more than two different elements or contains elements of varying numbers. They may think the triangle comes next, not really identifying the core, nor paying close attention to the two stars in the pattern. This student needs more support with identifying the core of the pattern to then determine what should come next in the pattern. During instructional activities, direct the student to circle or identify the core before deciding what would come next in the pattern. Students who are more visual may also benefit from coloring the pattern (i.e., all stars one color, all triangles another color, and the square a third color) allowing them to see the color pattern before identifying the core and then helping them to visualize what comes next in the pattern. Students should have experiences with repeating patterns such as AABC, ABAC, ABBC, and ABCD in first grade.

2. Fill in the blanks to complete the following pattern.



Some students may incorrectly record a heart and then an arrow as the next elements in this growing pattern. They are unable to identify what comes next in the growing pattern and may be focusing solely on the arrow and hearts without taking into account that the number of hearts grows. These students will need additional exposure to multiple examples of repeating and growing patterns that have more than two elements, as well as elements that vary in number.

3. Use linking cubes, pattern blocks, or other materials provided to create a growing pattern.
Explain what makes your pattern a growing pattern.

Some students may create a repeating pattern indicating that they may not be comfortable identifying and/or creating growing patterns. These students will need additional opportunities to explore, identify, describe, and create growing patterns throughout the school year. Growing patterns are more complex as students must determine not only what comes next, but must also generalize how the pattern is building or growing.

4. Transfer the following numerical pattern to a shape pattern:

6 4 6 3 6 4 6 3

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Students who are unable to transfer the number pattern to a shape representation need additional opportunities to collaborate with classmates to describe and analyze patterns and then represent those same patterns in different forms. Transferring patterns is easier for students once they are able to identify the core and extend patterns.