Patterns and cycles

NAME	DATE

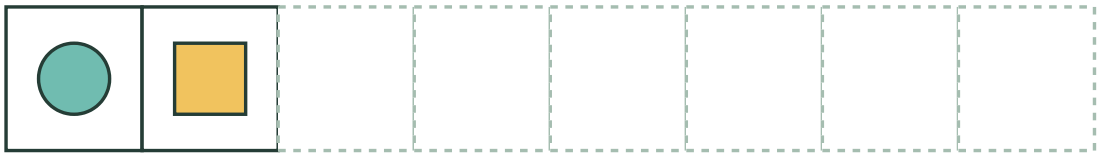
1 Look at this pattern. Colour the squares to show the same pattern. Use yellow and green, one colour for each kind of shape.





2 Start with the two shapes in each row. Draw two different repeating patterns. Circle one whole repeating part in each row.

First pattern



Different pattern



3 Write the missing month: November, ___, January, February.

Patterns and cycles

4 Circle means jump. Square means clap. Which action pattern matches?



1

→ ←	→ ←	↑	↑
Clap	Clap	Jump	Jump

2

→ ←	↑	→ ←	↑
Clap	Jump	Clap	Jump

○ 1 ○ 2

5 Which one repeats? Circle A or B. Draw an arrow to show what comes next. Write the missing word.

Count down, then stop

A 3 → 2 → 1 → 0 · Stop

One day

B Morning → Afternoon → Evening → Night

After night comes _____ again.

Patterns and cycles

1. Six squares coloured with the same repeating part as the shapes: one colour for each kind of shape, the same colour every time that shape comes, such as yellow, yellow, green, yellow, yellow, green. Which colour goes with which shape does not matter. A row with a different repeating part does not count.

Curriculum applications this task can record: Alberta Grade 1: Preserve the repeating structure in a different representation. Record the actual independent response and any separate actions; this does not establish the whole broader skill.

Broader skill evidence: Produces the bounded action in the linked statement; a single example does not certify the full outcome.



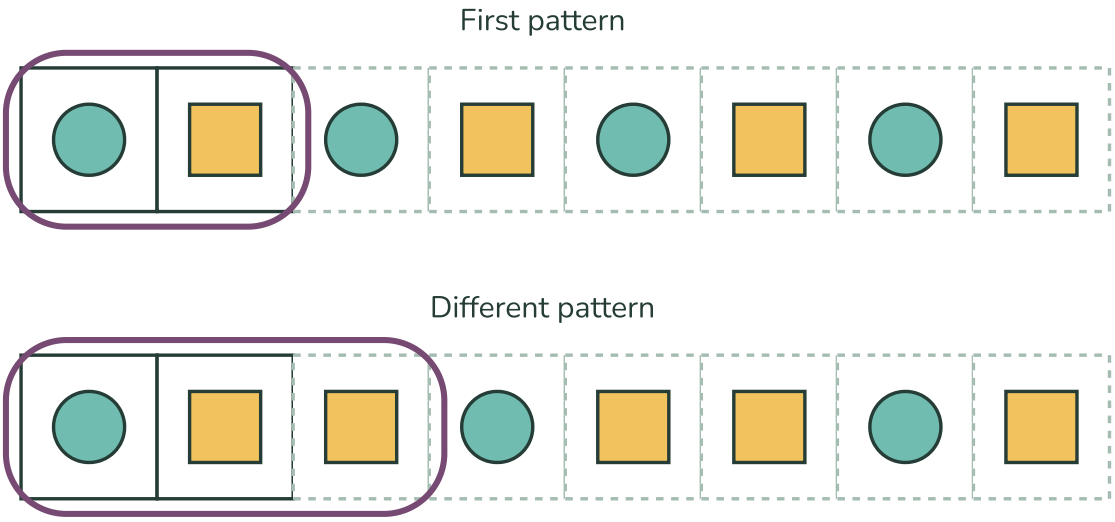
Six squares coloured with the same repeating part as the shapes: one colour for each kind of shape, the same colour every time that shape comes, such as yellow, yellow, green, yellow, yellow, green. Which colour goes with which shape does not matter. A row with a different repeating part does not count.

2. Both eight-shape rows begin circle, square. The child completes each row and circles its repeating part. Accept any two different minimal cores of 2–4 shapes, with at least two full repeats visible and all eight positions following that core. The minimal cores must differ: repeating a two-shape core twice does not make a different four-shape core. Colour changes, a different circled length or the same sequence in both rows do not count as two different patterns. The key shows examples, not the only answers.

Curriculum applications this task can record: Alberta Grade 1: Produce one valid continuation of the given start; Produce a genuinely different valid repeating continuation; Identify the repeating unit in each continuation. Record the actual independent response and any separate actions; this does not establish the whole broader skill.

Broader skill evidence: Completes two eight-shape rows from the same two-shape start and identifies a repeating core in each. Both must repeat consistently with different minimal cores of at most four shapes; two names for the same repeated core do not count.

Patterns and cycles



Both eight-shape rows begin circle, square. The child completes each row and circles its repeating part. Accept any two different minimal cores of 2–4 shapes, with at least two full repeats visible and all eight positions following that core. The minimal cores must differ: repeating a two-shape core twice does not make a different four-shape core. Colour changes, a different circled length or the same sequence in both rows do not count as two different patterns. The key shows examples, not the only answers.

3. December

Evidence for the stated action: Produces the bounded action in the linked statement; a single example does not certify the full outcome.

4. 2

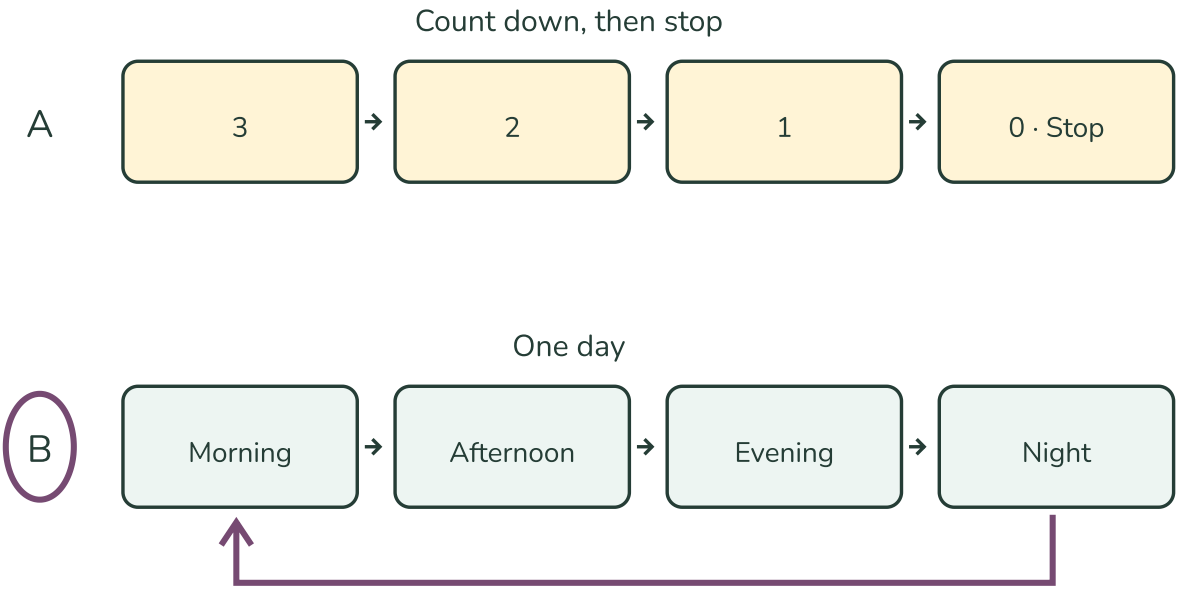
Practice / supporting evidence: Matches an action pattern to a supplied shape pattern; does not create a representation independently.

5. Circles B, the day cycle, and draws an arrow from Night back to Morning. Completes “After night comes morning again” (invented spelling is accepted). The countdown stops at 0 and is not looped. A letter alone is supporting recognition only; the return arrow and explanation must also be shown. This demonstrates the supplied contrast, not every possible cycle.

Curriculum applications this task can record: Alberta Grade 1: Recognize which presented sequence is a repeating cycle; Identify what repeats; Identify the return from the last part to the first. Record the actual independent response and any separate actions; this does not establish the whole broader skill.

Patterns and cycles

Broader skill evidence: Chooses the repeating day cycle, draws the return from night to morning and completes the explanation. All three responses are required; a letter alone is supporting recognition. Evidence is bounded to these supplied examples.



After night comes morning again.

Circles B, the day cycle, and draws an arrow from Night back to Morning. Completes “After night comes morning again” (invented spelling is accepted). The countdown stops at 0 and is not looped. A letter alone is supporting recognition only; the return arrow and explanation must also be shown. This demonstrates the supplied contrast, not every possible cycle.