Patterns, cycles and seasons

One child at a time. Read the steps, watch without helping, and note what the child does. Real objects are best; each card has a picture to use when there are none.

Activity 1 What is missing?

1. Cut out the shapes on this card. Lay them in a row, from left to right: square, circle, triangle, square, circle, triangle, square, circle, triangle.
2. Cover the 6th and 8th shapes with a scrap of paper.
3. Ask: “What shapes are missing? How do you know?”
4. Do not point along the row or help.

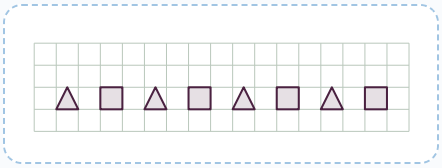


Look for: Says (or points to) the right shapes, in order: the 6th shape is a triangle and the 8th shape is a circle; and gives a reason from the part that repeats, square, circle, triangle, such as “it goes square, circle, triangle, so a triangle comes here”. The right shape with no reason, or a wrong shape, does not meet the task criteria.

What the child did and said: _____

Activity 2 What changes, what stays the same?

1. Point to the pattern on this card and let the child look at it.
2. Ask: “What changes in the pattern?”
3. Then ask: “What stays the same?”
4. Write down the child's words.

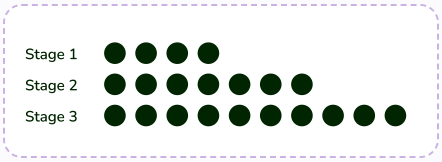


Look for: Says in their own words that the shape changes, and that the size or the colour stays the same (naming one of them is enough). Saying something changes that does not, or only naming the shapes, does not meet the task criteria.

What the child did and said: _____

Activity 3 Grow a pattern (optional)

1. Give the child about 19 cubes. Alternatively, cut out the printed squares.
2. Build stages 1, 2 and 3 in a row: 4, 7, 10 cubes, as in the picture.
3. Say: “Each stage grows the same way. Build stage 4.”
4. Then ask: “How did you know how many?”



Look for: Builds stage 4 with 13 cubes and says it grows by 3 each time. Copying stage 3, adding a different number of cubes, or building stage 5 (16 cubes) does not meet the task criteria.

Stage 4 had: _____

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Activity 4 The seasons repeat

1. Ask the child to tell you the seasons in order, starting with any season.
2. Ask: “What comes after that one? Does it start again?”
3. Ask: “What changes when the season changes?”

Look for: The four seasons in order, that the cycle starts again, and a change the child has seen, such as snow, leaves or longer days.

Not yet: One season only, or seasons out of order.

The child said: _____

Activity 5 Draw the seasons in order

1. Fold a sheet of paper into four parts.
2. Say: “Draw one thing your family does in each season, in order, starting with spring.”
3. When the child has finished, ask: “What season comes after the last one?”

Look for: Spring, summer, fall and winter in order, one thing for each, and that spring comes again after winter.

Not yet: A season missing or out of order, or not knowing what comes after winter.

The child drew and said: _____

Activity 6 Seasons in a community's year

1. Before the activity, choose a story or video about how a First Nations, Métis or Inuit community in Alberta follows the seasons, or invite an Elder or Knowledge Keeper.
2. Share the story with the child or a small group.
3. Ask: “What change in nature tells the people it is time to do something?”

Look for: A link between a change in nature and something people do, such as gathering or hunting when the season comes.

Not yet: This is a talk, not a test. Note what the child connects.

The child said: _____

Patterns, cycles and seasons: class record

▯ did it on their own ○ not yet – not seen yet. Write the date beside a mark to see progress over the year.

Child	1 What is missing?	2 What changes, what stays the same?	3 Grow a pattern (optional)	4 The seasons repeat	5 Draw the seasons in order	6 Seasons in a community's year