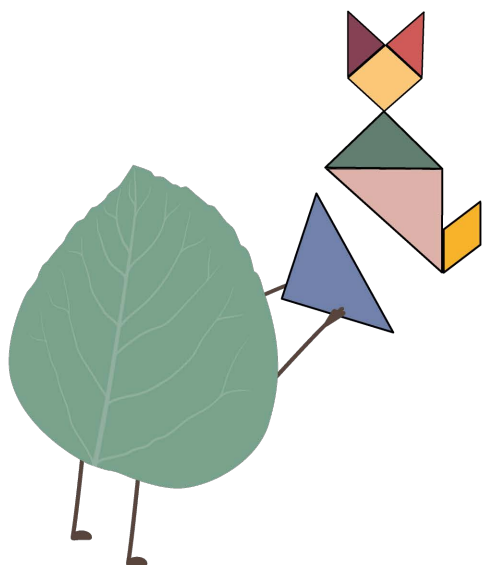


CREATE

K - 3

To use knowledge, reasoning and understanding to put elements together to form something new or original.



Creating requires that students use known elements to produce a new pattern, or structure based on given parameters. When students **create**, they are not following a model or template; therefore, independent creation would be done after repeated and varied opportunities to practice. When students create they demonstrate one of the highest levels of thinking.

The table below shows where **create** is included as student action within Alberta's K-3 Math curriculum.

Grade Level	Learning Outcomes	Skills & Procedures
Kindergarten	Children identify and create repeating patterns.	Create a repeating pattern with up to three repeating elements.
Grade 1		<p>Create different representations of the same repeating pattern or cycle, limited to a pattern core of up to four elements.</p> <p>Create a pictograph from a concrete graph. Extend a sequence of elements in various way to create repeating patterns.</p>
Grade 2		<p>Create a picture or design with shapes from verbal instructions, visualization, or memory.</p> <p>Create and express growing patterns using sounds, objects, pictures, or actions.</p> <p>Create and express a repeating pattern with a pattern core of up to four elements that change by more than one attribute.</p>
Grade 3		

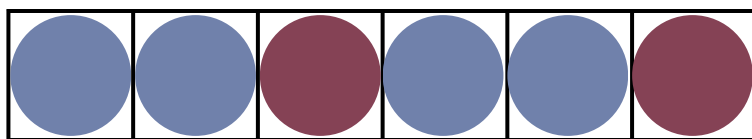
To best support learners, student action verbs should be explicitly taught, modeled and practiced through multiple experiences. The illustrative examples can provide clarification about how student understanding might be developed. It is important to reference the curriculum to view the entire context of the Learning Outcome and related KUSPS.

Illustrative Examples

Learning Outcome KP1: Children identify and **create** repeating patterns.

Skill and Procedure (KP1): **Create** a repeating pattern with up to three repeating elements.

1. Students can circle the pattern core in examples shown on the smart board or on a page shared amongst each small group.



- a)

- b)

- c)

2. They can identify the core, then complete the pattern in other given examples. In order to **create** their own pattern later, students need to understand which elements are repeated.

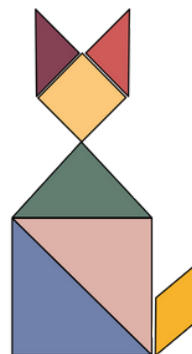
3. Students are asked to **create** one or more examples of a repeating pattern with 2 or 3 repeating elements. Provide various supplies (e.g. crayons, craft sticks, coloured paper clips, buttons, various shapes, pattern blocks etc.). They can share with a classmate when finished and explain the elements which **create** the pattern.

Skill and Procedure (2G1.1): **Create** a picture or design with shapes from verbal instructions, visualization, or memory.

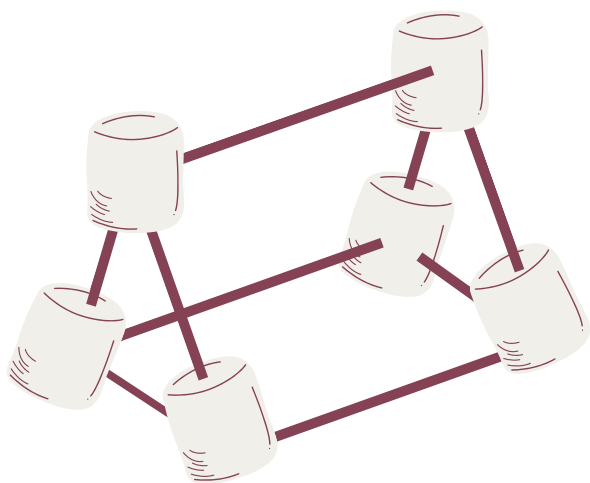
Note: Relates to the Understanding: A shape can be visualized as a composition of other shapes.

1. Students use pattern blocks or tangrams to **create** a building.
2. Students use provided shapes in a Google drawing to design a simple picture. They are encouraged to use 2 or more shapes to make a different shape. (e.g. using 2 triangles to make a square).

(continued on next page)



To best support learners, student action verbs should be explicitly taught, modeled and practiced through multiple experiences. The illustrative examples can provide clarification about how student understanding might be developed. It is important to reference the curriculum to view the entire context of the Learning Outcome and related KUSPS.



3. Teachers give simple step-by-step directions for students to **create** a triangle, cube or rectangular prism with toothpicks and marshmallows (or clay bits). Students would explain the shapes used to **create** this 3-D shape. With practice, students would use similar supplies to **create** a unique 3-D polygon shape made up of 2 or more 2-D-shaped sides.
4. Student partners sit back to back. Student A chooses a simple picture provided by the teacher which student B cannot see. Student A gives their partner step-by-step directions to draw a picture, such as in the 'Draw my Picture' game—link below.

References

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