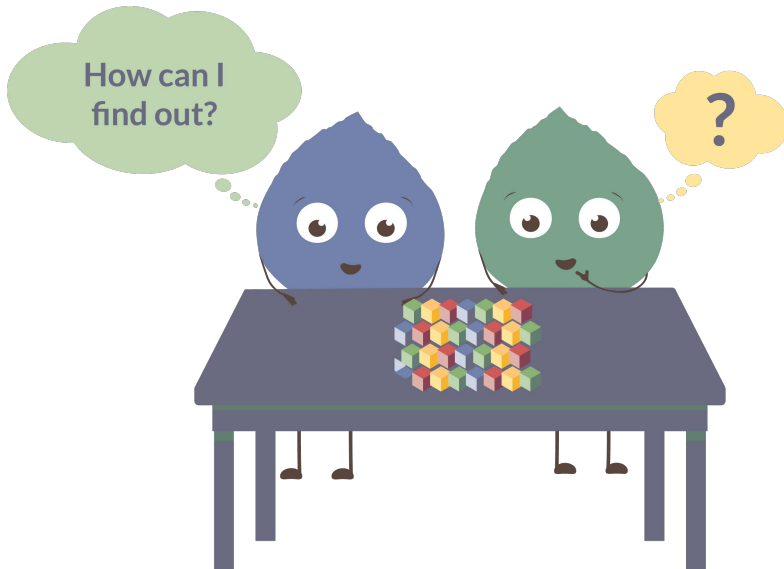


# ESTIMATE

K - 3

To come close, or be similar to, a number, calculation, quantity or measurement.



**Estimating** requires that students determine an approximate amount, quantity, magnitude, or value of something. It can involve benchmarks, referents and/or the rules of rounding. It implies a judgment about the reasonableness of an answer in context.

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

Grade Level	Learning Outcomes	Skills & Procedures
Kindergarten		
Grade 1		
Grade 2		<b>Estimate</b> quantities using benchmarks. <b>Estimate</b> length by visualizing the iteration of a referent for a centimetre.
Grade 3		<b>Estimate</b> sums and differences. <b>Estimate</b> length by comparing to a benchmark. <b>Estimate</b> length by visualizing the iteration of a referent for a centimetre or metre. <b>Estimate</b> which of two angles is greater.

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

Skills and Procedures (2N1.4): **Estimate** quantities using benchmarks.

Game: How Many?

Step 1. Place between 20 and 50 small counters/centicubes on the document camera. Turn the camera on for five seconds and then turn it off. Ask the students to write down their estimates.



Step 2. Turn the camera on and move 10 counters (benchmark) off to the side (but still on the screen). Tell students, “This is what 10 counters look like. How many groups of 10 do you think there are altogether? Do you want to change your estimate? If you do, will you change it to be more or less than your first estimate?”

Step 3. Ask students to explain their decision.

Note: Increase the number of units used as students become more confident with their **estimating**.

Skill and Procedure (3M1.3): **Estimate** length by visualizing the iteration of a referent for a centimetre or metre.



Ideas to accompany the story “Goat Island” (newLearnAlberta-Explore Resources).

- In the little book Goat Island, students see that part of the Mi’kmaw community of Eskasoni, Goat Island, undergoes observable changes throughout the year. Students collect data by measuring time, temperature, and length and explore units of measurement and their relationships.

Use the Teacher Guide as a guide to stop, pause and discuss: What unit of measure would you use to measure? Why? **Estimate** using a referent the length, width or height.

- For example: The snow on the trail can be 24 cm deep. Use your hands to **estimate** how far that is from the floor (pg. 10).

After reading, choose one of the options from the Teacher Guide to **estimate** length by visualizing a referent for centimeters or meters. See “Measuring Shadows” (pg. 24) or “Measuring Snow” (pg 27).

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.

### Additional Resources

[Manitoba Education's Grade 2 Mathematics Support Document.](#)

### References

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