

This discussion guide is designed for use by instructional leaders and professional learning communities or as a self-paced study to explore the Multiplicative Thinking Scope and Sequence Document.

Synopsis: This Scope and Sequence provides an overview of multiplicative thinking's progression from Kindergarten to Grade 5.

Multiplicative thinking is:

- A capacity to work flexibly with the concepts, strategies and representations of multiplication and division
- Going beyond memorization of basic arithmetic skills
- The means to communicate multiplicative understanding effectively in a variety of ways

Key Ideas

- The building blocks of Multiplicative Thinking begin as early as Kindergarten.
- Visualization, building and taking apart things are key to learning.
- This document sets the stage for developing Multiplicative Thinking.

Understanding the Outcomes

- All work should be centered around the verbs listed in the outcomes in the program of studies. Alberta Education has created “_____” in which they define the verbs used in the learning outcomes and set criteria for their associated expectations. How does Alberta Education’s document help you clarify your understanding of the outcomes and visualize what this looks like for your students.

The Importance of Vocabulary

- In order for students to communicate mathematical ideas, they need to be exposed to mathematical vocabulary in meaningful contexts. As you explore this document, which vocabulary words do you identify as critical?

Exploring the Document

- What drew your attention? What did you stop and actually read in depth?
- What questions did this spark?
- How do the activities included in this document link to the verbs listed in the outcomes?

In Your Classroom

- When, in the sequence of teaching these outcomes, would these activities be most useful for students?
- Considering your classroom and your students, how might you structure experiences for students to explore these ideas? (one-on-one, small group, whole group, etc.)
- How might you use these activities as part of your formative assessment practices?

For more information

- Please visit our online learning guide at:
 - <http://learning.arpdc.ab.ca>
- Visit your local consortium’s website to view upcoming learning opportunities, or to discuss customized follow-up possibilities.

Acknowledgement:

The *Elementary Mathematics Professional Learning* project is led by ARPDC and funded through a grant from Alberta Education to support implementation.