

# Welcome to Math (September 2020)

## GRADES 1 – 3

Three Main Suggestions for Starting in September:

1. *Prioritized Learning Standards*
2. *Finding Out What Your Students Know* (strength based) – diagnostic and formative assessment
3. *Ways to Support Your Students* (Instructional Routines and Open tasks)
  - a. Opportunities for Outdoor Learning
  - b. Adaptations for At Home Learning
  - c. Adaptations for Virtual Learning

### 1. *Prioritize the Learning Standards*

All mathematics curricular content and competencies are important and connected, but when having to prioritize learning standards, such as during Covid-19 times, idea of what is essential, foundational or core has emerged. In this time of varied learning, as begin the new school year we need to be mindful of what mathematics learning is essential for students to continue their learning at the next grade level.

The following questions can be considered in prioritizing essential learning standards:

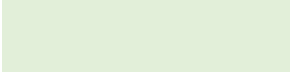
What is new curricular content at the grade level? Look at the grade levels before to see what curricular content is being introduced at the grade level. For examples, fractions, multiplication and division are all new concepts introduced in grade 3.

What curricular content is necessary to review, practice and enhance knowledge of, that is essential for next

# GRADE 1

Prioritized Curricular Content	Essential Curricular Competencies	Indicators of Proficiency	Instructional and Assessment Practices
<p>Number concepts to 20</p> <p>Ways to make 10</p> <p>Addition and subtraction of numbers to/within 20</p>	<p>Develop mental math strategies</p> <p>Problem solving</p> <p>Explain and justify mathematical ideas and decisions</p> <p>Represent mathematical ideas in concrete, pictorial and symbolic forms</p> <p>Connect mathematical ideas to each other, other areas and personal interests</p>	<p>Represent, compare and order numbers to 20</p> <p>Demonstrate understanding of ten number as ten and ones</p> <p>Count in various ways (by 1s, 2s, 5s, forwards and backwards, counting on from a number)</p> <p>Compose and decompose 10 in many ways using concrete, pictorial and symbolic forms (ie 5+5, 5+3+2, 6+3+1)</p> <p>Demonstrate understanding of the processes of addition and subtraction using materials, pictures and numbers/symbols</p> <p>Use more than one strategy to add and subtract (ie. counting all, counting on or back, making and bridging 10, decomposing, using doubles)</p>	<p><i>Number Talks</i> contributions during number talks and discussions</p> <p><i>Counting Collections</i> task-based interviews including observations while solving problems, engaging in tasks and working with materials</p> <p><i>Math Games</i> conferring – listening and observing</p> <p><i>Open Questions</i> products involving representing mathematical ideas with concrete, pictorial and symbolic forms</p>

GRADE 2



## GRADE 3

Prioritized Curricular Content	Essential Curricular Competencies	Indicators of Proficiency	Instructional and Assessment Practices
<p>Place value understanding to 1000</p> <p>Fluency with +/- facts</p> <p>Addition and subtraction of two and threedigit numbers</p> <p>Introduction to multiplication, division and fraction concepts</p>			

## 1. *Finding Out What Your Students Know* (strength based)

### Using Instructional Routines

An instructional routine is a familiar structure with an open-ended task where more time is spent on the learning of mathematics. A good routine provides all students opportunities to do mathematics and gives teachers insight into student thinking. Assessment is built into the routine and allows you identify the students' strengths and level of proficiency. Instructional routines should be intentionally planned to move learning forward in response to where students are in their mathematical thinking.

#### *Considerations:*

Decide on 'What to look for' before starting the routine and ways to record the information - indicating strengths (e.g. post it notes, check lists)

Create a community atmosphere about sharing thinking and respecting one another.

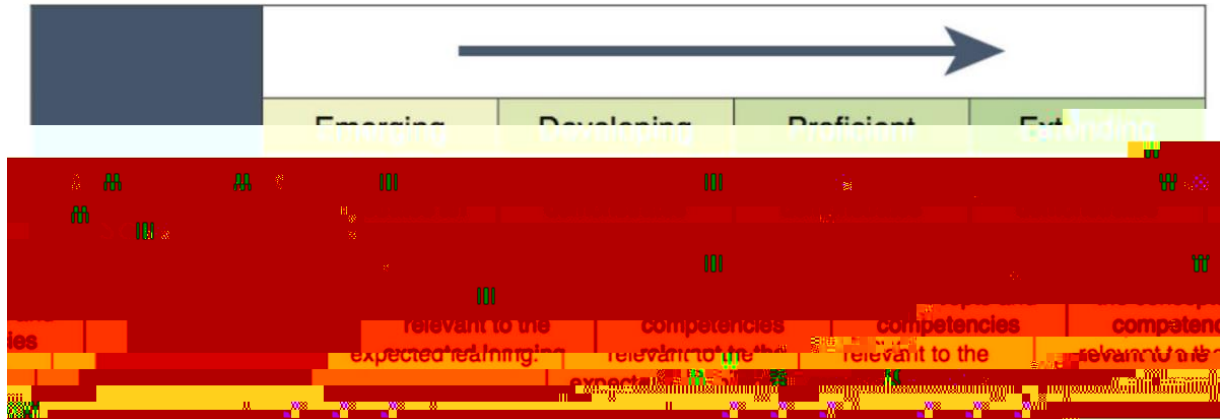
Start with an open-ended prompting question.

Provide for student time to think, share and reflect.

What to Look for by Grade - Indicators of Proficiency

# What to Look For...Considering the Proficiency Indicators

What level of proficiency are the students demonstrating?





## Counting Collections





Open Questions based on Prioritized Learning Standards:

### GRADE 3

You start at 100 and skip count forward by 25s. What is a number you are sure you will not say? How do you know? (e.g. I will not say 248 because I count 200, 225, 250. I will not say 248)

There are 8 hamburger buns in a package. How would you estimate the number of packages needed to feed