

Math

PRE-ASSESSMENT 4

Finding Each
Student's Pathway



**SAMPLE
MATERIAL
INSIDE**

FINDING EACH STUDENT'S PATHWAY

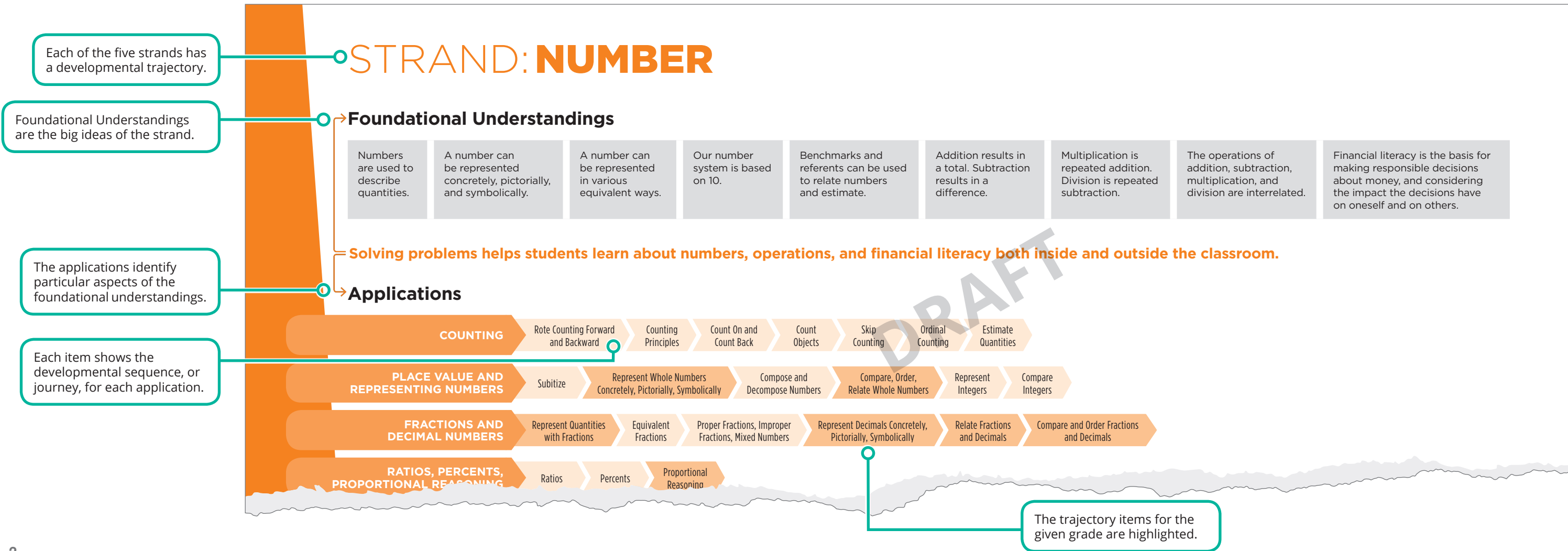
Math Pre-assessment is a uniquely designed resource to help educators understand and customize each student's math education. The resource is developed by a team of expert math educators and backed by research. *Math Pre-assessment* enables educators to compare a student's math understanding to their curriculum, identify gaps in understanding and ensure each student is ready for new curriculum material all with this easy to use assessment tool.

Each pre-assessment is created from a **DEVELOPMENTAL TRAJECTORY**. These developmental trajectories are research-supported pathways that students go through to understand mathematics concepts and skills as they move along a learning continuum.

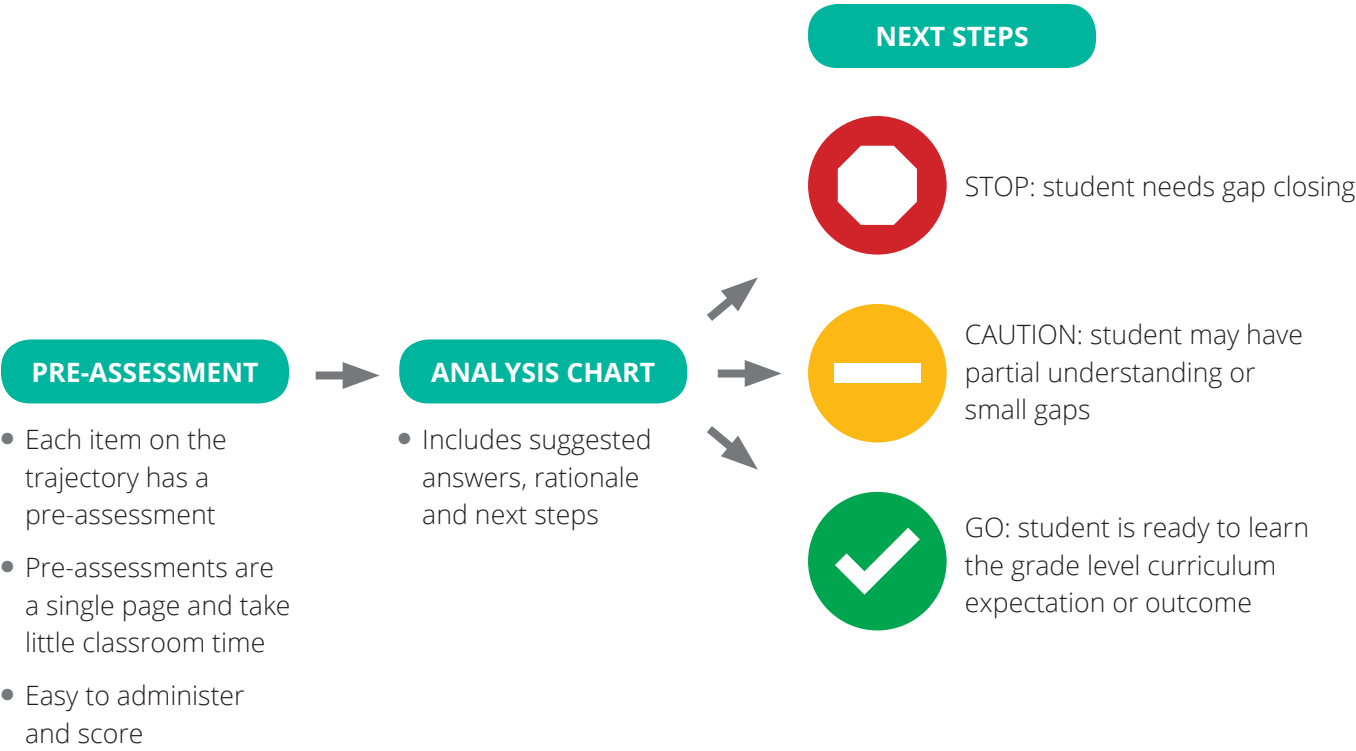
Key Features

- Provides the developmental trajectories to give a whole picture of math development from grade 1–6.
- Assesses whether students have the procedural knowledge and conceptual understandings for the grade specific curriculum.
- Pre-assessments identify where a student is on the developmental trajectory.
- Includes next steps for instruction, gap closing or intervention.
- Tracking tools are provided to keep a record of student readiness.

Developmental Trajectory



Answering The Question:
“Are My Students Ready?”



Resource Overview Grades 1–6
Developmental Trajectories For each of the 5 Strands
Math Pre-assessments For each item on the trajectory
Scoring Guide and Analysis Charts Provided for each pre-assessment
Online Teaching Centre Digital access

Name _____ Date _____

Comparing Fraction Models

MATERIALS

- pencil crayons

Initial question reaches back to prerequisite learning.

Assessment question focused on trajectory item.

1. Colour the diagram to show the fraction.

a) one half

b) three fourths

c) four sixths

2. Circle the rectangles that show one half of a whole.

3. Colour the fraction strip to show the fraction.

a) five tenths

b) four tenths

c) Use the fractions in parts a) and b).
Which fraction is less? _____
How do you know? _____

Analysis Chart pages XX–XX




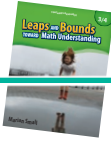
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ANALYSIS CHART

Comparing Fraction Models: Pre-assessment page xx			
NUMBER Fractions and Decimal Numbers Compare and Order Fractions and Decimals			
QUESTIONS	RATIONALE	SCORING	NEXT STEPS
1. Colour the diagram to show the fraction. a) one half For example,  b) three fourths For example,  c) four sixths For example, 	Students colour models to show their ability to read fractions as words and their understanding of some of the different meanings of fractions. The first meanings learned are that a fraction may represent a number, a part of a whole, or a part of a group.	incorrect 	Look at: • representing quantities with fractions Provide experience: • representing fractions as part of a continuous whole using pattern blocks and as part of a set using counters For deeper intervention, go to <i>Leaps and Bounds</i> 3/4, pages 74–75.
2. Circle the rectangles that show one half of a whole. Students circle the first, third, and fourth rectangles.	Students show their understanding of fractions by identifying models that represent one half. A fraction of a whole represents a number of equal parts of that whole, fractions have more than one name, and parts do not have to be adjacent.	incorrect last 2 incorrect	Provide experience: • representing a fraction in a variety of ways, beginning with unit fractions Provide experience: • using linking cubes, coloured tiles, counters, and fraction strips to represent equivalent fractions

QUESTIONS	RATIONALE	SCORING	NEXT STEPS
3. Colour the fraction strip to show the fraction. a) five tenths For example,  b) four tenths For example,  c) Use the fractions in parts a) and b). Which fraction is less? Four tenths How do you know? For example, four tenths is less than five tenths because the shaded area for four tenths is shorter.	Students use fraction strips to model and compare 2 proper fractions with like denominators. The fractions can be modelled in a number of ways, but since the 2 strips (the wholes) are the same size and shape, shading continuously starting at one end of the strips will allow for a visual comparison.	incorrect inadequate explanation correct	Provide experience: • representing fractions by shading fraction strips • using fraction strips to compare fractions with the same denominator Provide experience: • explaining their reasoning when comparing fractions (including checking that the whole is the same for each fraction before comparing lengths or other measures) Provide experience: • comparing fractions by relating them to benchmark numbers

Identifies the Strand, the Application(s) and the item(s) for the application.

Look at: Identify possible items on the trajectory to close gaps.

Answer provided.

Recommended intervention.

Contains the “Look Fors” and an explanation for why the question is included.

Student needs gap closing.

Student has partial understanding and small gaps.

Provide experience: suggestions for scaffolding understanding of concepts and skills identified in the question.

Student is ready to learn the trajectory item.

Sample answer provided.

Math Pre-Assessment Order Information

Title	ISBN
Math Pre-Assessment Grade 1	
Book + Online Teaching Centre (Ontario)	9780176830892
Book + Online Teaching Centre (WNCP)	9780176833497
Book + Online Teaching Centre (BC)	9780176833558
Math Pre-Assessment Grade 2	
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