

EVERY MATH LEARNER

A DOABLE APPROACH TO
TEACHING WITH LEARNING
DIFFERENCES IN MIND

GRADES 6-12



FREE
ONLINE
VIDEO
INCLUDED!

NANCI N. SMITH

FOREWORD BY
CAROL ANN TOMLINSON



Thank you

FOR YOUR
INTEREST IN
CORWIN

Please enjoy this complimentary excerpt from *Every Math Learner, Grades 6-12*. These pre-assessment strategies will help to better prepare students for tests.

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FIGURE 2.1

PREASSESSMENT STRATEGIES

Strategy/Description	Example																																
<p>A) Concept Map</p> <p>Students are challenged to create a concept map for the upcoming unit. Students can be provided any of the following information:</p> <ul style="list-style-type: none"> • Key vocabulary • Graphs, tables, or other visuals • Problem examples • Lesson titles <p>Students create a linked concept map based on their prior knowledge and expectations of how ideas will fit together. In their maps, students provide definitions and explanations as to why they have grouped, joined, or connected any areas. As a readiness differentiation, templates of maps or graphic organizers can be given to students to fill in.</p>	<p style="text-align: center;">Fantastic Functions!</p> <p style="text-align: center;">Create a concept map of all you know about functions. Be sure to show and explain the connections and groupings that make sense to you in any way you like. A word bank and categories are provided to trigger your imagination.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">Possible Word Bank</th> <th style="text-align: center;">Possible Categories</th> </tr> </thead> <tbody> <tr> <td>Absolute Value</td> <td>Independent Variable</td> <td>Parabola</td> <td>Function Families</td> </tr> <tr> <td>Degree</td> <td>Intercepts</td> <td>Quadratic</td> <td>Representations</td> </tr> <tr> <td>Dependent Variable</td> <td>Line</td> <td>Range</td> <td>Notation</td> </tr> <tr> <td>Domain</td> <td>Linear</td> <td>Rate of Change</td> <td>Vocabulary</td> </tr> <tr> <td>End Behaviors</td> <td>Mapping</td> <td>Relation</td> <td></td> </tr> <tr> <td>Exponential</td> <td>Ordered pairs</td> <td>Roots</td> <td></td> </tr> <tr> <td>Function</td> <td>Origin</td> <td>Zeros</td> <td></td> </tr> </tbody> </table> <p style="text-align: center;"> $\begin{array}{r l} x & y \\ \hline 0 & 2 \\ 1 & 3 \\ 2 & 4 \end{array}$ </p>	Possible Word Bank			Possible Categories	Absolute Value	Independent Variable	Parabola	Function Families	Degree	Intercepts	Quadratic	Representations	Dependent Variable	Line	Range	Notation	Domain	Linear	Rate of Change	Vocabulary	End Behaviors	Mapping	Relation		Exponential	Ordered pairs	Roots		Function	Origin	Zeros	
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<p>B) Misconception Check</p> <p>A misconception check is a list of statements or work to which students will agree or disagree (or mark True or False) and explain why they believe as they do. This is especially useful to surface common errors and misconceptions. Once students have responded, you can group students according to their answers—either answers that are alike to have specific further tasks ready or different answers to discuss and defend their positions.</p>	<p>Simplifying Expressions</p> <p>Mark each statement as True or False. Explain your thinking.</p> <ol style="list-style-type: none"> 1. Like terms are defined by the combination of variables in the term. 2. Any terms that have a common variable can be added or subtracted. 3. The same integer operation rules apply when simplifying expressions as when solving an integer problem. 4. The order of operations does not apply to algebraic terms. 																																

C) Quick Write

This is a free write for students to recall, model, draw, or calculate anything relating to the topic. This can be posed as a question, such as, "What do you know about ratios?" A word bank or skill list can be provided to stimulate students' thinking.

What Do You Know About Ratios?

What Do You Know About Ratios?

Please write, draw, or anything else you know to do to show me what you know about ratios. Be sure to include what is a ratio, and for what they are used. The word bank is there to help you if you want.

Word Bank

Comparison
Constant of Proportionality
Denominator
Numerator
Part
Proportion
Ratio
Scale
Unit rate
Whole

Pictures

4:3
4 are stripe
3 are blank

2:3
2 are color
3 are blank

Explanations, Applications, and Examples

Ratios show a relation between 2 amounts showing a value compared to another.
3 different ways to show a ratio =
— : — — / — — to —

Proportion, fractional pieces
You can multiply + divide a ratio by the same # on both sides

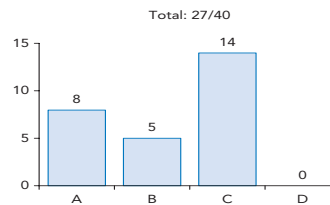
2:3 2x2:3x2 4:6 equivalent

D) Technology

There are many ways to use technology as a preassessment that does not have to be expensive. Certainly, clickers or calculator-based technology that allows you to survey and graph class data is effective. However, not everyone has these kinds of technology available. Consider giving a multiple-choice assessment and use Plickers for student responses. For this, assign students a specific card number and their answers will be logged and graphed through your smartphone. For free cards and information on using Plickers, see <https://www.plickers.com/library>. Survey Monkey, Socrative, and Poll Everywhere are also free sites that can be used, but you may not be able to get individual information, so use them carefully.

Choose a response that describes you today for "How are you doing?"

- A. Blessed Beyond Belief
- B. Happy To Be Here
- C. Hanging In There
- D. Really?



Answer	Card#	first name	last name
C	8	Eight	
-	18	Eighteen	
-	11	Eleven	
B	15	Fifteen	
-	5	Five	
C	40	Forty	
-	4	Four	
-	14	Fourteen	