



stage 2: more / less / same

Big Idea: Quantity

Quantity is the big idea that describes amounts, or sizes. It is a fundamental idea that refers to quantitative properties; the size of things (magnitude), and the number of things (multitude).

Why is Quantity Important?

Quantity means that numbers represent amounts. If students do not possess an understanding of Quantity, their knowledge of foundational mathematics will be undermined. Understanding Quantity helps students develop number conceptualization. In order for children to understand quantity, they need foundational experiences with counting, identifying numbers, sequencing, and comparing. Counting, comparing the magnitude of collections, and using numerals to quantify collections, form the developmental progression of experiences in Stage 2.

Children who understand number concepts know that numbers are used to describe quantities and relationships' between quantities. For example, the sequence of numbers is determined by each number's magnitude, a concept that not all children understand. Without this underpinning of understanding, a child may perform rote responses, which will not stand the test of further, rigorous application. The developmental progression of experiences in Stage 2 helps students actively grow a strong number knowledge base.

Stage 2 Learning Progression

Concept	Standard	Example	Description
2.1: Find '1 More'	K.CC.4	Find '1 more' than 3	Find the next number without counting . Find 'One More' first with a visual representation of an amount, and then with a number name, <i>without counting</i> . Amounts are visually displayed, and then, a single numeral is given. The goal is for a student to build on the concept of order of magnitude, and to understand each successive number in sequence is '1 more than' the number before; that 'the next number after equals one more.' Four means 'the number that is 1 more than 3.' Having 'number-after' knowledge asks the student to enter the sequence at any point and show next number without having to start at one.
2.2: Find '1 Less'	K.CC.4	Find '1 less' than 8	This level continues the idea of sequence magnitude by first showing a visual of an amount, and then a number name-not in any sequence. It tasks the student with finding 'the number that comes before' or, '1 less.' Having the 'number before' knowledge shows that the student can enter the sequence at any point and name 'the number before.' 2.1 and 2.2 introduce number relationships as the next learning progression after number size.



Concept	Standard	Example	Description
2.3: Find More	K.CC.6	Find more than 3	Students apply their small-number recognition, their understanding of order, counting, quantity size, to a comparison of collections within the 0-9 range. The tasks allows students to use counting and ordering knowledge in a practical manner, and develop a concrete understanding of numerical relationships. A number farther along a number line represents a larger quantity. A collection of dots labeled '5' is more than the collection labeled '2.' A taller bar is more than a shorter bar; longer becomes equated with more in the bar context
2.4: Find Less	K.CC.7	Find less than 3	This level continues the tasks and skills begun in 1.7, as needed in the concept of finding less, fewer, and shorter. As in 1.7, the different visual environments give breadth to using different comparative words.
2.5: Find Same	K.CC.7	Find a number the same as 4	Continues a child's intuitive understanding of relative amounts of more and less, and extends it to that of 'same.' The words used to describe the relationships move from "the same as" to, 'equals', with the use of the equals symbol to accompany number names.

Using the Extra Practice Worksheets

The Symphony Math Worksheets provide extended practice using the Multiples Ways of Knowing from the Symphony Math program. Students should work through all worksheets in the order given:

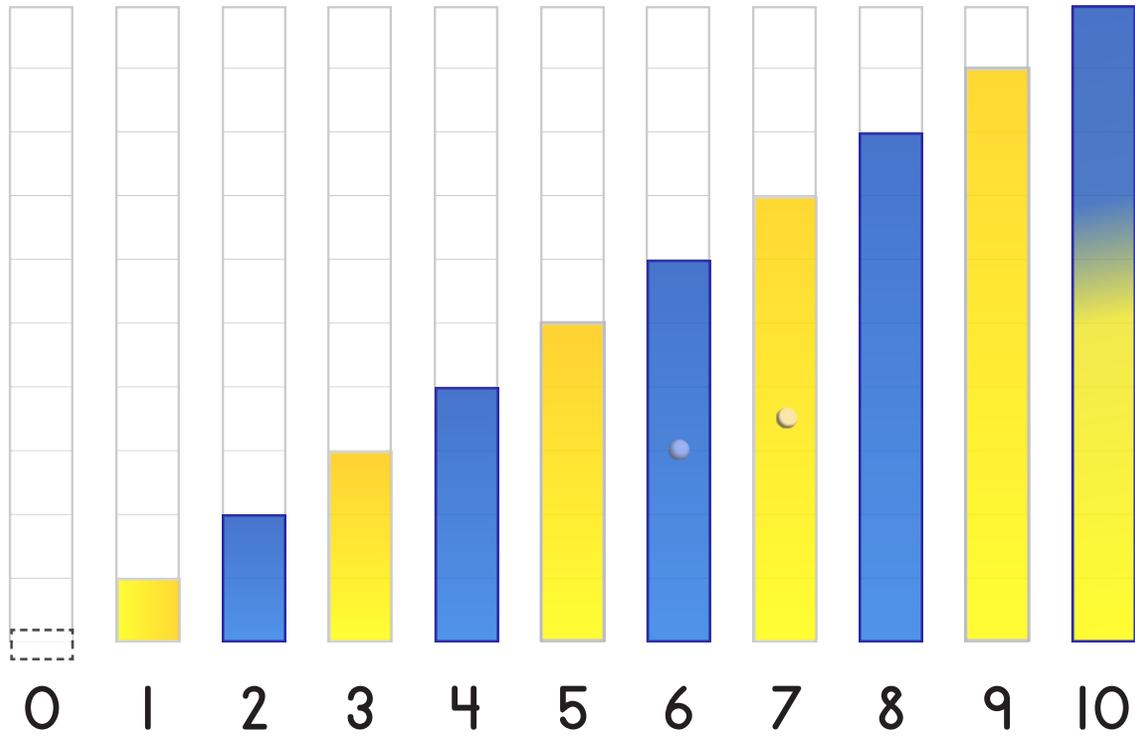
Worksheet	Purpose	Instructions
Manipulatives	Use a visual model to represent the concept.	Create bars, dot cards, or number lines for each item.
Bridge	Connect symbols to their visual representations.	Create objects, numbers, and symbols to complete each item.
Symbols	Understand the concept at the abstract level.	Create numbers and symbols to complete each item.
Apply	Extend understanding to real-life problem solving.	<ol style="list-style-type: none"> 1) Read the story presented at the top of the page. 2) Create a number model of the full solution. 3) Write the number sentence that matches the model.

Group Learning

The Symphony Math Extra Practice materials are designed to promote a conversation about the Big Ideas in math. One-on-one or small group instruction with the materials is recommended for students who need more time to make connections between the mathematical concepts in the Stage and the application of those concepts in their math curriculum.



Symphony Bars: Stage 2



Dot Cards: Stage 2

