Year at a Glance - First Grade Mathematics

What Students Learn

Students in first grade develop concepts, skills, and understandings necessary to represent and solve problems involving addition and subtraction; understand and apply properties of these operations and the relationship between addition and subtraction; add and subtract within 20; work with addition and subtraction equations; extend the counting sequence; understand place value and use place value understanding and properties of operations to add and subtract; and measure lengths indirectly and by iterating length units.

Students count to 120 (starting from any number), compare whole numbers (at least to 100), and read and write numbers in the same range. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Students add and subtract within 20 and demonstrate fluency with these operations within 10. They represent and solve word problems involving adding-to, taking-from, putting-together, taking-apart, and comparing situations including addend-unknown situations. Students know how to apply properties of addition (associativity and commutativity) and strategies based on these properties (e.g., “making tens”) to solve addition and subtraction problems. Students use methods to add (within 100), subtract multiples of 10 (using various strategies), and mentally find 10 more or 10 less without counting.

Students order three objects by length using non-standard units and indirectly measure objects by comparing the length of two objects using a third object as a measuring tool. They describe and classify shapes by geometric attributes and explain why a shape belongs to a given category. Students use graphs and charts to organize and represent data. They tell and write time in hours and half-hours.

Unit Numbers and Titles

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<th>Unit Numbers and Titles</th>
<th>Overview of Depth of Mastery</th>
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| 0. Introductory Week (2 weeks) | **Grade 1 students should master:**  
  - Counting to 120 and reading and writing numbers to 120  
  - Fluently adding and subtracting within 10  
  - Understanding the meaning of the equal (=) sign  
  - Ordering 3 objects by length  
  - Seeing a 2-digit number as tens and ones  
  - Compare two 2-digit numbers using symbols  
  - Mentally add or subtract 10 from a two-digit number  
| 1. Adding and Subtracting within 20 (10 weeks) | **Grade 1 students work towards fluency in:**  
  - Determine an unknown in a +/- equation  
  - Use +/- to solve word problems  
  - Use +/- properties (commutativity and associativity)  
  - Use strategies/concrete models to add & subtract up to 20  
  - Addition within 100 using various strategies  
  - Measure objects using non-standard units  
  - Build and distinguish between defining and non defining attributes of 2D and 3D shapes  
  - Subtracting multiples of 10 from multiples of 10 (60-10)  
| 2. Linear Measurement with nonstandard units and comparing 3 objects (3 weeks) | **Grade 1 students are introduced to:**  
  - Telling and writing time in hours and half hours  
  - Composing 2- and 3-dimensional shapes  
  - Organizing, representing & interpreting data – 3 categories  
  - Partitioning circles and rectangles into halves and fourths  
| 3. Place Value within 120 (4 weeks) |  
| 4. Addition within 100 and Subtraction with Multiples of 10 (9 weeks) |  
| 5. Data and Graphs - Organize, represent, and interpret data up to 3 categories (3 weeks) |  
| 6. Reason with Shapes and Attributes (3 weeks) |  
| 7. Time to Hour and 1/2 Hour (2 weeks) |  

IUSD  
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