

## CURRICULUM MAP MATH KINDERGARTEN

<u>August/September</u> 1 <sup>st</sup> 9 Weeks Math Connects Chapters 1 & 2	<u>October</u> 1 <sup>st</sup> 9 Weeks Math Connects Chapters 3	<u>November</u> 2 <sup>nd</sup> 9 Weeks Math Connects Chapters 4 & 5	<u>December</u> 2 <sup>nd</sup> 9 Weeks Math Connects Chapter 6	
<p><b>Number, Number Sense and Operations</b> 2. Explain rules of counting, such as each object should be counted once and that order does not change the number. 6. Construct multiple sets of objects each containing the same number of objects. 7. Compare the number of objects in two or more sets when one set has one or two more, or one or two fewer objects.</p> <p><b>Geometry and Spatial Sense</b> *1. <i>Identify and sort two-dimensional shapes and three-dimensional objects. For example:</i> a. Identify and describe two-dimensional figures. b. Sort shapes and objects into groups based on student-defined categories. c. Select all shapes or objects of one type from a group.</p>	<p><b>Patterns, Functions and Algebra</b> 1. Sort, classify and order objects by size, number and other properties. For example: a. Identify how objects are alike and different. c. Recognize and explain how objects can be classified in more than one way. d. Identify what attribute was used to sort groups of objects that have already been sorted.</p> <p><b>NOTES:</b> <b>-Teacher will need to supplement “constructing multiple sets” by using manipulatives.</b> <b>-Introduce Numbers 0-10.</b></p>	<p><b>Geometry and Spatial Sense</b> 2. Name and demonstrate the relative position of objects as follows: a. Place objects over, under, inside, outside, on, beside, between, above, below, on top of, upside-down, behind, in back of, in front of; b. Describe placement of objects with terms such as on, inside, outside, above, below, over, under, beside, between, in front of, behind.</p> <p><b>Patterns, Functions, and Algebra</b> *2. <i>Identify, create, extend and copy sequences of sounds (such as musical notes), shapes (such as buttons, leaves or blocks), motions (such as hops or skips), and numbers from 1 to 10.</i> 3. Describe orally the pattern of a given sequence.</p> <p><b>Notes:</b> <b>-Supplemental materials for positional words can be found in Ohio Maps For Success pg. OH 30-34</b> <b>- Suggestion: Spend one week on positional words and three weeks on patterns (Supplemental materials for patterns can be found in Chapter 3 Resource Masters) )</b> <b>*Assess identifying and copying 2<sup>nd</sup> 9 weeks.</b> <b>*Assess creating and extending 3<sup>rd</sup> 9 weeks.</b></p>	<p><b>Number, Number Sense and Operations</b> 1. Compare and order whole numbers up to 10. *5. <i>Relate, read and write numerals for single-digit numbers (0 to 9).</i> *4. <i>Determine “how many” in sets (groups) of 10 or fewer objects.</i></p> <p><b>Data Analysis and Probability</b> 1. Gather and sort data in response to questions posed by teacher and students; e.g., how many sisters and brothers, what color shoes. *2. <i>Arrange objects in a floor or table graph according to attributes, such as use, size, color or shape.</i> 3. Select the category or categories that have the most or fewest objects in a floor or table graph.</p> <p><b>Notes:</b></p>	<p><b>Number, Number Sense and Operations</b> 3. <i>Count to twenty; e.g., in play situations or while reading number books.</i> 13. Recognize the number or quantity of sets up to 5 without counting; e.g., recognize without counting the dot arrangement on a domino as 5.</p> <p><b>Notes: Practice writing and recognizing numbers to 20.</b></p>

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<u>January</u> 2 <sup>nd</sup> /3 <sup>rd</sup> 9 Weeks Math Connects Chapters 7 & 9		<u>February</u> 3 <sup>rd</sup> 9 Weeks Math Connects Chapter 10	<u>March/April</u> 4 <sup>th</sup> 9 Weeks Math Connects Chapters 11 & 12	<u>May</u> 4 <sup>th</sup> 9 Weeks Math Connects Chapter 8 and Looking Ahead
<p><b>Measurement</b> *1. Identify units of time (day, week, month, year) and compare calendar elements; e.g., weeks are longer than days. 2. Compare and order objects of different lengths, areas, weights and capacities; and use relative terms, such as longer, shorter, bigger, smaller, heavier, lighter, more, or less. 3. Measure length and volume (capacity) using uniform objects in the environment. For example, find: a. how many paper clips long is a pencil; b. how many small containers it takes to fill one big container using sand, rice, beans. 4. Order events based on time. For example: a. Activities that take a long or short time; b. Review what we do first, next, last; c. Recall what we did or plan to do yesterday, today, tomorrow.</p>	<p><b>Patterns, Functions and Algebra</b> b. Order three events or objects according to given attribute, such as time or size. <b>Notes:</b> <b>-Supplement heavily with hands-on measurement activities.</b> <b>-Chapter 8 will be taught in May.</b> <b>-Supplemental materials for ordering events based on time can be found in Ohio Maps For Success pg. OH 24-29.</b></p>	<p><b>Geometry and Spatial Sense</b> *1. Identify and sort two-dimensional shapes and three-dimensional objects. For example: a. Identify and describe three-dimensional figures. d. Build two-dimensional figures using paper shapes or tangrams; build simple three-dimensional objects using blocks. <b>Number, Number Sense and Operations</b> *9. Identify and state the value of a penny, nickel and dime.  <b>Notes: Supplemental materials for money can be found in Ohio Maps For Success Pg. OH 35-47</b></p>	<p><b>Number, Number Sense and Operations</b> 8. Represent and use whole numbers in flexible ways, including relating, composing and decomposing numbers; e.g., 5 marbles can be 2 red and 3 green or 1 red and 4 green. *10. Model and represent addition as combining sets and counting on, and subtraction as take-away and comparison. For example: a. Combine and separate small sets of objects in contextual situations; e.g., add or subtract one, two, or another small amount. b. Count on (forward) and count back (backward) on a number line between 0 and 10. <b>Patterns, Functions and Algebra</b> 4. Model a problem situation using physical materials. <b>Notes:</b> <b>- Addition will be covered in March</b> <b>- Subtraction will be covered in April.</b></p>	<p><b>Number, Number Sense and Operations</b> 11. Demonstrate joining multiple groups of objects, each containing the same number of objects; e.g., combining 3 bags of candy, each containing 2 pieces. 12. Partition or share a small set of objects into groups of equal size; e.g., sharing 6 stickers equally among 3 children.  <b>Notes:</b> <b>- Supplemental materials for joining multiple groups can be found in Ohio Maps For Success Pg. OH 18-23</b></p>

# Benchmarks

## **Mathematical Processes Standard**

Students use mathematical processes and knowledge to solve problems. Students apply problem-solving and decision-making techniques, and communicate mathematical ideas. The benchmarks for mathematical processes articulate what students should demonstrate in problem solving, representation, communication, reasoning and connections at key points in their mathematics program. Specific grade-level indicators have not been included for the mathematical processes standard because content and processes should be interconnected at the indicator level. Therefore, mathematical processes have been embedded within the grade-level indicators for the five content standards.

### **By the end of the K-2 program:**

- A. Use a variety of strategies to understand problem situations; e.g., discussing with peers, stating problems in own words, modeling problems with diagrams or physical materials, identifying a pattern.
- B. Identify and restate in own words the question or problem and the information needed to solve the problem.
- C. Generate alternative strategies to solve problems.
- D. Evaluate the reasonableness of predictions, estimations and solutions.
- E. Explain to others how a problem was solved.
- F. Draw pictures and use physical models to represent problem situations and solutions.
- G. Use invented and conventional symbols and common language to describe a problem situation and solution.
- H. Recognize the mathematical meaning of common words and phrases, and relate everyday language to mathematical language and symbols.
- I. Communicate mathematical thinking by using everyday language and appropriate mathematical language.