

Mathematics

Second Grade



The Indiana Academic Standards define what students should know, understand, and be able to do at grade level beginning in kindergarten and progressing through grade twelve. These standards serve as the foundation to our curriculum in Noblesville Schools but are not a curriculum on their own. The Indiana Academic Standards are supported through grade-level curriculum maps and a selection of curriculum materials to support these maps. These curriculum maps and materials are aligned to the Indiana Academic standards while also meeting the needs of all learners. Therefore, the Noblesville Schools' curriculum is constantly undergoing periodic and systematic analysis and revision.

- PS.1: Make sense of problems and persevere in solving them.
- PS.2: Reason abstractly and quantitatively.
- PS.3: Construct viable arguments and critique the reasoning of others.
- PS.4: Model with mathematics.
- PS.5: Use appropriate tools strategically.
- PS.6: Attend to precision.
- PS.7: Look for and make use of structure.
- PS.8: Look for and express regularity in repeated reasoning.

In second grade, instructional time is focused on the key components of the process standards for mathematics, which are embedded throughout core instruction in a balanced math structure. The Process Standards demonstrate the ways in which students should develop conceptual understanding of mathematical content, and the ways in which students should synthesize and apply mathematical skills. The second grade Indiana Academic Standards for Mathematics serve as the foundation of our curriculum and encompass key instructional areas of number sense, computation and algebraic thinking, geometry, measurement, and data analysis. These kindergarten standards are supported in Noblesville Schools through curriculum materials for mathematics instruction, including *Indiana Reveal Math by McGraw Hill*.



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Indiana Reveal Math

Indiana Reveal Math by McGraw Hill serves as the primary core curriculum material for all second grade learners and provides alignment with the Indiana Academic Standards for Mathematics.

Table 1: Second Grade Indiana Reveal Math

Mathematics Unit Pacing Varies By Unit	Mathematics Unit Learning Outcomes Learners will...	Mathematics Unit Focus Question
Unit 1: Math Is...	Understand that math is everywhere as part of our daily lives. Building proficiency with habits of mind that support mathematical thinking. Build an understanding of the norms that foster a productive math environment.	What does it mean to do math?
Unit 2: Place Value to 1,000	Extend understanding of place value and number sense concepts such as understanding hundreds and digits in a 3-digit number, reading and writing numbers up to 1,000, and comparing 3-digit numbers.	How can I use place value to understand and compare numbers to 1,000?
Unit 3: Patterns within Numbers	Review counting by 1s and explore each hundred set between 100 and 1,000. Identify patterns by skip counting by 5s, 10s, and 100s. Explore even and odd numbers.	How can I use patterns to count and add numbers?



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Mathematics Unit Pacing Varies By Unit	Mathematics Unit Learning Outcomes Learners will...	Mathematics Unit Focus Question
Unit 4: Meanings of Addition and Subtraction	Understand that addition is putting together of parts or adding to a given quantity to reach a given quantity. Understand that addition is an inverse of subtraction. Use addition and subtraction representations.	How can I represent and solve addition and subtraction word problems?
Unit 5: Strategies to Fluently Add within 100	Extend understanding of addition concepts to find sums up to 100 including regrouping, partial sums, decomposing, and adjusting addends.	What strategies can I use to add 2-digit numbers?
Unit 6: Strategies to Fluently Subtract within 100	Choose and explain how to use a strategy to solve a given problem that includes topics such as decomposing a number, adjusting numbers, and using addition to subtract.	What strategies can I use to subtract 2-digit numbers?
Unit 7: Measure and Compare Lengths	Learn to measure using standard units including inches, feet, yards, centimeters, and meters.	How can I estimate and measure length in standard units?
Unit 8: Measurement: Money and Time	Develop understanding of counting money in different combinations of coins and/or bills as well as telling and writing time to the nearest 5 minutes.	How can I measure with money and time?



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Mathematics Unit Pacing Varies By Unit	Mathematics Unit Learning Outcomes Learners will...	Mathematics Unit Focus Question
Unit 9: Strategies to Add 3-Digit Numbers	Build on previously taught strategies to apply to 3-digit addition problems. Develop understanding of decomposing addends, partial sums, adjusting addends, and representations and tools.	What strategies can I use to add 3-digit numbers?
Unit 10: Strategies to Subtract 3-Digit Numbers	Build on previously taught strategies to apply to 3-digit addition problems. Examine strategies that have been previously learned and can be applied when subtracting 3-digit numbers.	What strategies can I use to subtract 3-digit numbers?
Unit 11: Data Analysis	Build on previously taught concepts to gather, organize, and analyze data.	How can picture graphs, bar graphs, and line plots help me interpret data?
Unit 12: Geometric Shapes and Equal Shares	Partition 2-dimensional shapes into equal shares of halves, thirds, and fourths. Partition a rectangle into rows and columns by tiling it with square tiles. Identify 2- and 3- dimensional shapes by their attributes. Draw 2-dimensional shapes based on attributes and solve problems about them.	How can I name, draw, and partition geometric shapes?