

Mathematics

First 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 first 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 first 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 first grade learners and provides alignment with the Indiana Academic Standards for Mathematics.

Table 1: First 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. Re-introduce 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: Number Patterns	Explore and develop an understanding of patterns in numbers to 120 by identifying, describing, reading, and writing numbers, and counting the number of objects in a group with a written numeral.	How can I use patterns to count, read, and write numbers?
Unit 3: Place Value	Analyze and represent numbers as tens and ones. Explore different tools and methods to represent 2-digit numbers. Compare numbers using the symbols $>$, $<$, and $=$.	How can I use place value to represent and compare numbers?
Unit 4: Addition within 20: Facts and Strategies	Develop concepts of addition within 20 through finding sums using various strategies. Extend understanding of place value and number sense concepts.	What strategies can I use to add?



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Mathematics Unit Pacing Varies By Unit	Mathematics Unit Learning Outcomes Learners will...	Mathematics Unit Focus Question
Unit 5: Subtraction within 20: Facts and Strategies	Relate counting to subtraction. Use various tools and strategies to find differences within 20. Extend understanding of subtraction concepts to find differences within 20.	What strategies can I use to subtract?
Unit 6: Shapes and Solids	Define 2- and 3-dimensional shapes based on their attributes. Extend understanding of 2- and 3-dimensional shapes including defining and non-defining attributes and composite shapes and solids.	What are shapes and solids?
Unit 7: Meanings of Addition	Represent and solve addition word problems for two common addition situations: add to and put together. Make connections between words and numbers in the problem and an equation that matches the story. Extend understanding of strategies to solve addition word problems.	How can I solve addition problems?
Unit 8: Meanings of Subtraction	Develop concepts of subtraction within 20 through the context of take from and take apart. Use models to solve. Extend understanding of strategies to solve subtraction word problems.	How can I solve subtraction problems?
Unit 9: Addition within 100	Build upon skills and concepts to add 2-digit numbers with and without regrouping. Add multiples of 10. Write equations to describe given addition stories.	How do I use strategies to add 2-digit numbers?



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Mathematics Unit Pacing Varies By Unit	Mathematics Unit Learning Outcomes Learners will...	Mathematics Unit Focus Question
Unit 10: Compare Using Addition and Subtraction	Build upon knowledge to solve compare situations such as difference unknown, greater unknown, and lesser unknown.	How can I compare using addition and subtraction?
Unit 11: Subtraction within 100	Extend work on topics such as subtracting multiples of 10, subtraction patterns, and writing equations.	What strategies help me subtract 2-digit numbers?
Unit 12: Measurement and Data	Measure and compare lengths of objects, using nonstandard units of measurement. Read, write, tell, and show time to the hour and half hour. Organize, represent, and interpret data.	How can I use tools to measure and interpret data?
Unit 13: Equal Shares	Learn to determine if a 2-dimensional shape has been partitioned into equal shares. Develop understanding of partitioning and describing equal shares.	What are equal shares?