2017-2018 Curriculum Catalog

Mathematics 400

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Mathematics 400 Course Overview

Math 400 is a full-year elementary math course focusing on number skills and numerical literacy. In it, students will gain solid experience with number theory and operations, including decimals and fractions. This course also integrates geometric concepts and skills throughout the units, teaches measurement skills, and introduces students to statistical concepts.

By the end of the course, students will be expected to do the following:

- Perform all four operations on whole numbers.
- Compare and order numbers, using place value and rounding.
- Add and subtract fractions and decimals.
- Understand measurement concepts, including the metric system.
- Calculate perimeters and areas of regular plane shapes.
- Represent data on varied statistical charts.

Unit 1: Number Sense and Place Value	
Assignments	
1. Course Overview	16. Quiz 3
2. Place Value to 1,000s	17. Reading and Writing Fractions
3. Single-Digit Addition	18. Practice Multiplication
4. Single-Digit Subtraction	19. Counting Money
5. Multi-Digit Addition	20. Operations
6. Multi-Digit Subtraction	21. Quiz 4
7. Review Place Value to 1,000s	22. Review: Numbers
8. Quiz 1	23. Story Problems
9. Multiplication Facts	24. Quiz 5
10. Family of Facts	25. Special Project*
11. Telling Time	26. Review Game
12. Quiz 2	27. Test
13. Number Words	28. Alternate Test*
14. Patterns	29. Reference
15. Cardinal and Ordinal Numbers	

Unit 2: Rounding and Estimation

Assignments

1.	Operations	15.	Equivalent Fractions
2.	Multiplication Facts: 6-10 and Review	16.	Rounding Numbers to 100s
3.	Using Standard Measures	17.	Estimating Answers to 100s
4.	Quiz 1	18.	Review: Computation
5.	Place Value to 10,000s	19.	Quiz 4
6.	Relation Symbols	20.	Review: Bar Graphs and Fractions
7.	Missing Number Equations	21.	Review: Fractions
8.	Review: Even and Odd Numbers	22.	Quiz 5
9.	Quiz 2	23.	Special Project*
10.	Adding and Subtracting Fractions	24.	Review Game
11.	Rounding Numbers to 10s	25.	Test
12.	Estimating Answers to 10s	26.	Alternate Test*
13.	Review: Math Symbols	27.	Reference
14.	Quiz 3		

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Unit 3: Whole Numbers and Fractions

Assignments

1.	Place Value	15.	Quiz 3
2.	Rounding Numbers to 10s, 100s, and 1,000s	16.	Equivalent Fractions
3.	Multiply with Carrying to 10s	17.	Learn Numbers to 100,000s
4.	Multiplication Practice	18.	Equations
5.	Quiz 1	19.	Quiz 4
6.	Multi-Digit Addition and Subtraction	20.	Reading and Solving Story Problems
7.	Rounding and Estimating	21.	Line Graphs
8.	Fractions Equal to Whole Numbers	22.	Quiz 5
9.	Quiz 2	23.	Special Project*
10.	Estimate Answers to 1,000s	24.	Review Game
11.	Relation Symbols	25.	Test
12.	Fractions	26.	Alternate Test*
13.	Add and Subtract to 10,000s	27.	Reference
14.	Check Your Answers		

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Unit 4: Lines and Shapes

Assignments

1.	Plane and Solid Shapes	12.	Missing Number Problems
2.	Quiz 1	13.	Review: Operation and Relation Symbols
3.	Practice Addition and Subtraction	14.	Quiz 4
4.	Place Value and Rounding	15.	Review: Expanded Notation and Estimation
5.	Multiply with Carrying to 100s	16.	Review: Fractions and Place Value
6.	Quiz 2	17.	Quiz 5
7.	Lines, Segments, End Points, Rays, Angles	18.	Special Project*
8.	Lines, Directions, and Maps	19.	Review Game
9.	Quiz 3	20.	Test
10.	Review: Plane and Solid Shapes	21.	Alternate Test*
11.	Fractions	22.	Reference

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Unit 5: Division and Measurement

Assignments

1.	Introduction to Division	14.	Quiz 3
2.	Multiplication	15.	Missing Number Problems
3.	Addition and Subtraction	16.	Division Practice
4.	Review: Time and Number Sense	17.	Roman Numerals
5.	Quiz 1	18.	Review: Regrouping
6.	Linear Measurement	19.	Quiz 4
7.	Capacity (Dry and Liquid Measurement)	20.	Patterns
8.	Division Facts	21.	Quiz 5
9.	Review: Multiplication	22.	Special Project*
10.	Quiz 2	23.	Review Game
11.	Reading a Calendar	24.	Test
12.	Perimeter and Area	25.	Alternate Test*
13.	Finding Perimeter and Area	26.	Reference

Unit 6: Multiplication and Fractions

Assignments

1.	Prime and Composite Numbers	13.	Equivalent Fractions
2.	Multiples	14.	Review: Rounding and Shapes
3.	Division with Remainders	15.	Quiz 4
4.	Quiz 1	16.	Factors and Multiples
5.	Equations and Grouping	17.	Problem Solving with Equations
6.	Proper and Improper Fractions	18.	Quiz 5
7.	Quiz 2	19.	Special Project*
8.	Multiplication Facts For 11 and 12	20.	Review Game
9.	Fractions and Mixed Numbers	21.	Test
10.	Review: Division and Roman Numerals	22.	Alternate Test*
11.	Quiz 3	23.	Reference
12.	Measurements		

Unit 7: Fractions and Patterns

Assignments

1.	Multiplication and Division	13.	Review: Shapes, Perimeter, and Area
2.	Factors, Multiples, and Variables	14.	Fractions and Patterns
3.	Fractions	15.	Practice: Operations and Money
4.	Quiz 1	16.	Quiz 4
5.	Multiplication and Fractions	17.	Review: Cardinal and Ordinal Numbers
6.	Average and Number Rules	18.	Quiz 5
7.	Review: Measurement and Place Value	19.	Special Project*
8.	Quiz 2	20.	Review Game
9.	Fractions	21.	Test
10.	Missing Number Problems	22.	Alternate Test*
11.	Quiz 3	23.	Reference
12.	Rounding Numbers and Place Value		

Unit 8: Division and Fractions

Assignments

1.	Factoring and Place Value	13.	Fractions
2.	Review: Two-Digit Multiplication	14.	Review: Time
3.	Fractions	15.	Quiz 4
4.	Quiz 1	16.	Review: Operations and Rounding
5.	Division	17.	Review: Roman Numerals, Measurement, and Symbols
6.	Fractions	18.	Quiz 5
7.	Missing Number Problems	19.	Special Project*
8.	Quiz 2	20.	Review Game
9.	Multiplication	21.	Test
10.	Division	22.	Alternate Test*
11.	Quiz 3	23.	Reference
12.	The Metric System		

Unit 9: Decimals and Fractions

Assignments

1.	Decimals	13.	Mixed Numbers
2.	Money	14.	Sensible Answers
3.	Multiplication of Whole Numbers	15.	Quiz 4
4.	Quiz 1	16.	Review: Fractions
5.	Ordered Pairs	17.	Review
6.	Division and Averages	18.	Quiz 5
7.	Quiz 2	19.	Special Project*
8.	Add and Subtract Decimals	20.	Review Game
9.	Fractions with Different Denominators	21.	Test
10.	Equivalent Fractions and Decimals	22.	Alternate Test*
11.	Quiz 3	23.	Reference
12.	Multiply and Divide		

Unit 10: Graphing and Review

Assignments

1.	Data Collection and Random Sampling	11.	Quiz 3
2.	Project: Collecting Data	12.	Sizes, Shapes, and Measurements
3.	Project: Predicting Data	13.	Word Problems and Equations
4.	Graphs	14.	Quiz 4
5.	Quiz 1	15.	Special Project*
6.	Whole Numbers	16.	Review Game
7.	Decimal Numbers	17.	Test
8.	Quiz 2	18.	Alternate Test*
9.	Problem Solving with Fractions	19.	Reference
10.	Fractions		

(*) Indicates alternative assignment