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2018 - 2019 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	
Mathematics 400	1. Course Overview
	2. Place Value to 1,000s
	3. Single-Digit Addition
	4. Single-Digit Subtraction
	5. Multi-Digit Addition
	6. Multi-Digit Subtraction
	7. Review Place Value to 1,000s
	8. Quiz 1
	9. Multiplication Facts
	10. Family of Facts
	11. Telling Time
	12. Quiz 2
	13. Number Words
	14. Patterns
	15. Cardinal and Ordinal Numbers
16. Quiz 3	
17. Reading and Writing Fractions	
18. Practice Multiplication	
19. Counting Money	
20. Operations	
21. Quiz 4	
22. Review: Numbers	
23. Story Problems	
24. Quiz 5	
25. Special Project*	
26. Review Game	
27. Test	
28. Alternate Test*	
29. Reference	

Unit 2: Rounding and Estimation	
Assignments	
Mathematics 400	1. Operations
	2. Multiplication Facts: 6-10 and Review
	3. Using Standard Measures
	4. Quiz 1
	5. Place Value to 10,000s
	6. Relation Symbols
	7. Missing Number Equations
	8. Review: Even and Odd Numbers
	9. Quiz 2
	10. Adding and Subtracting Fractions
	11. Rounding Numbers to 10s
	12. Estimating Answers to 10s
	13. Review: Math Symbols
	14. Quiz 3
15. Equivalent Fractions	
16. Rounding Numbers to 100s	
17. Estimating Answers to 100s	
18. Review: Computation	
19. Quiz 4	
20. Review: Bar Graphs and Fractions	
21. Review: Fractions	
22. Quiz 5	
23. Special Project*	
24. Review Game	
25. Test	
26. Alternate Test*	
27. Reference	

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	

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

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		
Mathematics 400	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		
Mathematics 400	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		
Mathematics 400	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		
Mathematics 400	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		
Mathematics 400	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