



2012 Curriculum Catalog

Mathematics 400

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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	
Assignment Titles	
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	
Assignment Titles	
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	

UNIT 3: WHOLE NUMBERS AND FRACTIONS
Assignment Titles

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|--|--|
| 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
Assignment Titles

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|--|--|
| 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 | Reference |

UNIT 5: DIVISION AND MEASUREMENT
Assignment Titles

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|--|-----------------------------|
| 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
Assignment Titles

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|---|------------------------------------|
| 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
Assignment Titles

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|--|--|
| 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
Assignment Titles

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|-------------------------------------|--|
| 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
Assignment Titles

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|--|-----------------------|
| 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
Assignment Titles

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|--|-------------------------------------|
| 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 | |