

CURRICULUM OVERVIEW

Mathematics 400



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Mathematics 400 Course Overview

Math 400 is a full-year elementary math course focusing on number skills and mathematical 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.

- **Unit 1:** Use place value, fact families, and number patterns
- **Unit 2:** Use knowledge of patterns and operations to round and estimate
- **Unit 3:** Identify whole numbers and compare fractions
- **Unit 4:** Identify the qualities of shapes and angles, and review various concepts
- **Unit 5:** Use strategies for division and multiplication, and use units of measurement for capacity, weight, and length
- **Unit 6:** Use multiplication strategies and fractions to solve problems
- **Unit 7:** Use patterns to add, subtract, compare, and convert fractions
- **Unit 8:** Use division strategies and fractions to solve problems
- **Unit 9:** Read, write, and compare decimals and fractions
- **Unit 10:** Collect and interpret data using different types of graphs, and review various concepts

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

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

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

Unit 4: Lines and Shapes	
Assignments	
1. Plane and Solid Shapes	13. Angles in Shapes
2. Quiz 1: Plane and Solid Shapes	14. Angles in Circles
3. Practice Addition and Subtraction	15. Review: Operation and Relation Symbols
4. Place Value and Rounding	16. Quiz 4: Fractions; Review
5. Multiply with Carrying to 100's	17. Review: Expanded Notation and Estimation
6. Quiz 2: Number Sense	18. Review: Fractions and Place Value
7. Lines, Segments, Endpoints, Rays, Angles	19. Quiz 5: Review
8. Lines, Directions, and Maps	20. Special Project*
9. Quiz 3: Lines and Maps	21. Test
10. Review: Plane and Solid Shapes	22. Alternate Test*
11. Fractions	23. Glossary and Credits
12. Missing Number Problems	

Unit 5: Division and Measurement		
Mathematics 400	Assignments	
	1. Introduction to Division	13. Perimeter and Area (1)
	2. Multiplication	14. Perimeter and Area (2)
	3. Addition and Subtraction	15. Quiz 3: Perimeter and Area
	4. Review: Time and Number Sense	16. Missing Number Problems
	5. Quiz 1: Operations; Review	17. Division Practice
	6. Linear Measurement	18. Roman Numerals
	7. Capacity (Dry and Liquid Measurement)	19. Review: Regrouping
	8. Division Facts	20. Patterns
	9. Review: Multiplication	21. Quiz 4: Number Sense and Operations
	10. Quiz 2: Measurements and Division	22. Special Project*
	11. Reading a Calendar	23. Test
	12. Using Models to Find the Formulas for Area and Perimeter	24. Alternate Test*
		25. Glossary and Credits
Unit 6: Multiplication and Fractions		
Mathematics 400	Assignments	
	1. Prime and Composite Numbers	12. Review: Division and Roman Numerals
	2. Multiples	13. Review: Rounding and Shapes
	3. Multiplication Facts For 11 and 12	14. Quiz 3: Review of Multiple Concepts
	4. Factors and Multiples	15. Equations and Grouping
	5. Division with Remainders	16. Problem Solving with Equations
	6. Quiz 1: Multiples, Factors, and Multiplication Facts	17. Quiz 4: Equations
	7. Proper and Improper Fractions	18. Special Project*
	8. Fractions and Mixed Numbers	19. Test
	9. Equivalent Fractions	20. Alternate Test*
	10. Quiz 2: Fractions and Mixed Numbers	21. Glossary and Credits
	11. Review: Measurements	
Unit 7: Fractions and Patterns		
Mathematics 400	Assignments	
	1. Multiplication and Division	11. Review: Cardinal and Ordinal Numbers
	2. Factors, Multiples, and Variables	12. Review: Rounding Numbers and Place Value
	3. Missing Number Problems	13. Review: Measurement
	4. Averages and Number Rules	14. Quiz 3: Review of Multiple Concepts
	5. Quiz 1: Number Sense, Missing Number Problems, and Averages	15. Review: Shapes, Perimeter, and Area
	6. Fractions (1)	16. Review: Operations and Money
	7. Fractions (2)	17. Quiz 4: Review of Multiple Concepts
	8. Review: Multiplication and Fractions	18. Special Project*
	9. Fractions and Patterns	19. Test
	10. Quiz 2: Fractions	20. Alternate Test*
		21. Glossary and Credits

Unit 8: Division and Fractions		
Mathematics 400	Assignments	
	1. Factoring and Place Value	12. Review: Time
	2. Division (1)	13. Review: Multiplication
	3. Division (2)	14. Review: Operations and Rounding
	4. Quiz 1: Factoring and Division	15. Review: Roman Numerals, Measurement, and Symbols
	5. Fractions (1)	16. Quiz 4: Review of Multiple Concepts
	6. Fractions (2)	17. Special Project*
	7. Fractions (3)	18. Test
	8. Quiz 2: Fractions	19. Alternate Test*
	9. Missing Number Problems	20. Glossary and Credits
	10. The Metric System	
	11. Quiz 3: Missing Number Problems and the Metric System	
Unit 9: Decimals and Fractions		
Mathematics 400	Assignments	
	1. Decimals	13. Quiz 2: Fractions and Mixed Numbers
	2. Place Value and Number Comparison with Whole Numbers and Decimals	14. Multiply and Divide
	3. Equivalent Fractions and Decimals	15. Multiplication of Whole Numbers
	4. Add and Subtract Decimals	16. Division and Averages
	5. Computation with Whole Numbers and Decimals	17. Quiz 3: Multiplication and Division
	6. Money	18. Estimation
	7. Money Management	19. Ordered Pairs
	8. Project: Money Management	20. Multiple Concept Review
	9. Quiz 1: Decimals and Money	21. Quiz 4: Estimation and Coordinate Pairs; Review
	10. Review: Fractions	22. Special Project*
	11. Fractions with Unlike Denominators	23. Test
	12. Mixed Numbers	24. Alternate Test*
		25. Glossary and Credits
Unit 10: Graphing and Review		
Mathematics 400	Assignments	
	1. Data Collection and Random Sampling	10. Review: Fractions
	2. Project: Collecting Data	11. Quiz 3: Fractions
	3. Project: Predicting and Reporting Data	12. Shapes
	4. Graphs	13. Word Problems and Equations
	5. Quiz 1: Data Collection, Random Sampling, and Graphs	14. Quiz 4: Shapes, Equations, and World Problems
	6. Whole Numbers	15. Special Project*
	7. Decimal Numbers	16. Test
	8. Quiz 2: Operations with Whole and Decimal Numbers	17. Alternate Test*
	9. Problem Solving with Fractions	18. Glossary and Credits

(*) Indicates alternative assignment