



2019-20

CALVERT HOMESCHOOL™ 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 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	
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**

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

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

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

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|--|---|
| 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**Assignments**

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|---|---|
| 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**Assignments**

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| 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		
Assignments		
Mathematics 400	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		
Assignments		
Mathematics 400	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		
Assignments		
Mathematics 400	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