



Switched-On
SCHOOLHOUSE

Course 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				
MATHEMATICS 400	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	30.	

UNIT 2: ROUNDING AND ESTIMATION				
Assignment Titles				
MATHEMATICS 400	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		

MATHMATICS 400		UNIT 3: WHOLE NUMBERS AND FRACTIONS	
		Assignment Titles	
	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	

MATHMATICS 400		UNIT 4: LINES AND SHAPES	
		Assignment Titles	
	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

MATHMATICS 400		UNIT 5: DIVISION AND MEASUREMENT	
		Assignment Titles	
	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	
MATHEMATICS 400	Assignment Titles
	1. Prime and Composite Numbers
	2. Multiples
	3. Division with Remainders
	4. Quiz 1
	5. Equations and Grouping
	6. Proper and Improper Fractions
	7. Quiz 2
	8. Multiplication Facts For 11 and 12
	9. Fractions and Mixed Numbers
	10. Review: Division and Roman Numerals
	11. Quiz 3
12. Measurements	
13. Equivalent Fractions	
14. Review: Rounding and Shapes	
15. Quiz 4	
16. Factors and Multiples	
17. Problem Solving with Equations	
18. Quiz 5	
19. Special Project*	
20. Review Game	
21. Test	
22. Alternate Test*	
23. Reference	

UNIT 7: FRACTIONS AND PATTERNS	
MATHEMATICS 400	Assignment Titles
	1. Multiplication and Division
	2. Factors, Multiples, and Variables
	3. Fractions
	4. Quiz 1
	5. Multiplication and Fractions
	6. Average and Number Rules
	7. Review: Measurement and Place Value
	8. Quiz 2
	9. Fractions
	10. Missing Number Problems
	11. Quiz 3
12. Rounding Numbers and Place Value	
13. Review: Shapes, Perimeter, and Area	
14. Fractions and Patterns	
15. Practice: Operations and Money	
16. Quiz 4	
17. Review: Cardinal and Ordinal Numbers	
18. Quiz 5	
19. Special Project*	
20. Review Game	
21. Test	
22. Alternate Test*	
23. Reference	

UNIT 8: DIVISION AND FRACTIONS	
MATHEMATICS 400	Assignment Titles
	1. Factoring and Place Value
	2. Review: Two-Digit Multiplication
	3. Fractions
	4. Quiz 1
	5. Division
	6. Fractions
	7. Missing Number Problems
	8. Quiz 2
	9. Multiplication
	10. Division
	11. Quiz 3
12. The Metric System	
13. Fractions	
14. Review: Time	
15. Quiz 4	
16. Review: Operations and Rounding	
17. Review: Roman Numerals, Measurement, and Symbols	
18. Quiz 5	
19. Special Project*	
20. Review Game	
21. Test	
22. Alternate Test*	
23. Reference	

UNIT 9: DECIMALS AND FRACTIONS	
MATHEMATICS 400	Assignment Titles
	1. Decimals
	2. Money
	3. Multiplication of Whole Numbers
	4. Quiz 1
	5. Ordered Pairs
	6. Division and Averages
	7. Quiz 2
	8. Add and Subtract Decimals
	9. Fractions with Different Denominators
	10. Equivalent Fractions and Decimals
	11. Quiz 3
12. Multiply and Divide	
13. Mixed Numbers	
14. Sensible Answers	
15. Quiz 4	
16. Review: Fractions	
17. Review	
18. Quiz 5	
19. Special Project*	
20. Review Game	
21. Test	
22. Alternate Test*	
23. Reference	

UNIT 10: GRAPHING AND REVIEW	
Assignment Titles	
MATHEMATICS 400	1. Data Collection and Random Sampling
	2. Project: Collecting Data
	3. Project: Predicting Data
	4. Graphs
	5. Quiz 1
	6. Whole Numbers
	7. Decimal Numbers
	8. Quiz 2
	9. Problem Solving with Fractions
	10. Fractions
	11. Quiz 3
	12. Sizes, Shapes, and Measurements
	13. Word Problems and Equations
	14. Quiz 4
	15. Special Project*
	16. Review Game
	17. Test
	18. Alternate Test*
	19. Reference

(*) Indicates alternate assignment