



monarch

2018 - 2019 Curriculum Catalog

Mathematics 300

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Mathematics 300 Course Overview

Math 300 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, learning how to apply these in measurement situations. This course also integrates geometric concepts and skills throughout the units, as well as introducing students to statistical concepts.

By the end of the course, students will be expected to do the following:

- Understand place value and know how to compare and order numbers.
- Perform addition and subtraction, carrying and borrowing on whole numbers.
- Know basic multiplication facts.
- Understand representations in fraction and mixed number forms.
- Understand concepts of likelihood and basic probability.
- Understand concepts of shape, symmetry, and perimeter.
- Understand measurement concepts, including time and temperature.
- Understand representations using decimals and money.

| Unit 1: Whole Numbers | |
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| Assignments | |
| 1. Course Overview | 16. Quiz 3 |
| 2. Patterns: Digits and Number Words | 17. Adding with Carrying |
| 3. Place Value | 18. Cardinal and Ordinal Numbers |
| 4. Single-Digit Addition | 19. Standard Measurement for Time |
| 5. Single-Digit Subtraction | 20. Calendar Time |
| 6. Addition Problems | 21. Quiz 4 |
| 7. Subtraction Problems | 22. Unit Concept Review 1 |
| 8. Quiz 1 | 23. Unit Concept Review 2 |
| 9. Numbers on a Number Line | 24. Practice: Addition and Subtraction |
| 10. Pattern for Expanded Notation | 25. Quiz 5 |
| 11. Adding Multi-digit Numbers | 26. Special Project* |
| 12. Quiz 2 | 27. Review Game |
| 13. Subtracting 3-Digit Numbers | 28. Test |
| 14. Measurement | 29. Alternate Test* |
| 15. Operation Symbols | 30. Reference |

| Unit 2: Number Patterns | |
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| Assignments | |
| 1. Family of Facts | 14. Money |
| 2. Adding Ones, Tens, and Hundreds | 15. Review: Borrowing |
| 3. Subtracting Ones, Tens, and Hundreds | 16. Addition: Checking Answers |
| 4. Quiz 1 | 17. Subtraction: Checking Answers |
| 5. Place Value and Number Words | 18. Quiz 4 |
| 6. Addition with Carrying | 19. Review: Number Order and Place Value |
| 7. Skip Counting and Number Words | 20. Review: Addition and Subtraction Facts |
| 8. Quiz 2 | 21. Quiz 5 |
| 9. Skip Counting and Addition with Carrying | 22. Special Project* |
| 10. Fractions | 23. Review Game |
| 11. Subtracting with Borrowing | 24. Test |
| 12. Quiz 3 | 25. Alternate Test* |
| 13. Shapes | 26. Reference |

| Unit 3: Whole Numbers and Fractions | |
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| Assignments | |
| 1. Fact Families, Mental Math, and Addition | 15. Fractions - Continued |
| 2. Column Addition | 16. Addition Practice |
| 3. Addition: With and Without Carrying | 17. Time: AM and PM |
| 4. Quiz 1 | 18. Quiz 4 |
| 5. Measurements: Weight and Volume | 19. Review: Addition, Subtraction, and Money |
| 6. Fact Family, Place Value, and Number Order | 20. Review: Story Problems, Lines, Shapes, and Measurement |
| 7. Checking Addition Problems | 21. Quiz 5 |
| 8. More Checking Addition Problems | 22. Special Project* |
| 9. Quiz 2 | 23. Review Game |
| 10. Subtraction with Borrowing | 24. Test |
| 11. Number Sentences and Symbols | 25. Alternate Test* |
| 12. Subtraction with Borrowing and Checking | 26. Reference |
| 13. Quiz 3 | |
| 14. Fractions | |

| Unit 4: Place Value | |
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| Assignments | |
| 1. Numbers to Thousands Place | 13. Roman Numerals |
| 2. Addition and Skip Counting | 14. Review: Subtraction with Borrowing |
| 3. Quiz 1 | 15. Quiz 4 |
| 4. Rounding and Estimation | 16. Review: Fractions |
| 5. Subtraction with Borrowing | 17. Review: Word Problems and Money |
| 6. Measurement | 18. Quiz 5 |
| 7. Quiz 2 | 19. Special Project* |
| 8. Number Words and Place Value | 20. Review Game |
| 9. Number Patterns | 21. Test |
| 10. Addition and Subtraction: Horizontal Form | 22. Alternate Test* |
| 11. Quiz 3 | 23. Reference |
| 12. Adding and Subtracting Fractions | |

| Unit 5: Measurement, Shapes, and Review | |
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| Assignments | |
| 1. Operation Symbols and Number Sense | 14. Odd And Even Numbers |
| 2. Multi-Digit Addition And Subtraction | 15. Review: Checking Addition |
| 3. Cardinal and Ordinal Numbers | 16. Review: Checking Subtraction |
| 4. Quiz 1 | 17. Review: Roman Numerals and Fractions |
| 5. Number Patterns Using Place Value | 18. Quiz 4 |
| 6. Measuring Temperature | 19. Review: Multiple Concepts |
| 7. Quiz 2 | 20. Review: Story Problems |
| 8. Operation Symbols | 21. Quiz 5 |
| 9. Shapes and Symmetry | 22. Special Project* |
| 10. Rounding and Estimating | 23. Review Game |
| 11. Finding Perimeter | 24. Test |
| 12. Quiz 3 | 25. Alternate Test* |
| 13. Multi-Digit Addition and Subtraction | 26. Reference |

| Unit 6: Multiplication, Addition, and Subtraction | | |
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| Assignments | | |
| Mathematics 300 | 1. Multi-Digit Addition | 13. Lines, Angles, and Temperature |
| | 2. Skip Counting and Multiplication | 14. Review: Addition and Subtraction |
| | 3. Review: Telling Time | 15. Quiz 4 |
| | 4. Quiz 1 | 16. Story Problems |
| | 5. Review: Subtraction | 17. Multiple Concept Review |
| | 6. Perimeter and Area | 18. Review: Calendar |
| | 7. Review: Fractions | 19. Quiz 5 |
| | 8. Quiz 2 | 20. Special Project* |
| | 9. Addition and Equivalent Fractions | 21. Review Game |
| | 10. Money Computation and Roman Numerals | 22. Test |
| | 11. Quiz 3 | 23. Alternate Test* |
| | 12. Multiplication | 24. Reference |

| Unit 7: Operations, Likelihood, and Probability | | |
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| Assignments | | |
| Mathematics 300 | 1. Review: Place Value | 13. Quiz 3 |
| | 2. Review: Subtraction with Borrowing | 14. Review: Money |
| | 3. Multiplication Facts (1) | 15. Multiplication Facts (2) |
| | 4. Quiz 1 | 16. Quiz 4 |
| | 5. Measurement | 17. Multiple Concept Review |
| | 6. Practicing Subtraction with Borrowing | 18. Quiz 5 |
| | 7. Mixed Numbers | 19. Special Project* |
| | 8. Quiz 2 | 20. Review Game |
| | 9. Review: Expanded Notation and Roman Numerals | 21. Test |
| | 10. Probability and Likelihood | 22. Alternate Test* |
| | 11. Math Facts | 23. Reference |
| | 12. Symmetry | |

| Unit 8: Measurement, Fractions, and Decimals | | |
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| Assignments | | |
| Mathematics 300 | 1. Shapes, Measurement, and Addition | 12. Multiple Concept Practice |
| | 2. Time and Measurement | 13. Review: Addition With Checking |
| | 3. Quiz 1 | 14. Quiz 4 |
| | 4. Fractions, Odd and Even Number Patterns | 15. Word Problems |
| | 5. Decimals | 16. Using Graphs |
| | 6. Money Problems | 17. Quiz 5 |
| | 7. Quiz 2 | 18. Special Project* |
| | 8. Fractions, Place Value, and Measurement | 19. Review Game |
| | 9. Directions | 20. Test |
| | 10. Quiz 3 | 21. Alternate Test* |
| | 11. Multiplication Facts | 22. Reference |

| Unit 9: Review: Multiple Concepts | | |
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| Assignments | | |
| Mathematics 300 | 1. How Numbers Work | 13. Quiz 3 |
| | 2. Math Facts | 14. Symmetry and Shapes |
| | 3. Add/Subtract with Checking | 15. Roman Numerals |
| | 4. Multiplication | 16. Quiz 4 |
| | 5. Quiz 1 | 17. Likelihood and Graphing |
| | 6. Equivalent Fractions | 18. Problem Solving |
| | 7. Reading and Writing Fractions | 19. Quiz 5 |
| | 8. Fraction Computation | 20. Special Project* |
| | 9. Quiz 2 | 21. Review Game |
| | 10. Measure: Length, Perimeter, and Area | 22. Test |
| | 11. Measure: Money, Time, and Temperature | 23. Alternate Test* |
| | 12. Measure: Weight and Volume | 24. Reference |

| Unit 10: Basic Math Review | | |
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| Assignments | | |
| Mathematics 300 | 1. Review: Rounding and Estimation | 13. Review: Shapes and Symmetry |
| | 2. Review: Adding Fractions | 14. Review: Roman Numerals |
| | 3. Review: Subtracting Fractions | 15. Review: Measurement |
| | 4. Review: Multiplication Facts | 16. Quiz 4 |
| | 5. Quiz 1 | 17. Review: Number Symbols and Grouping |
| | 6. Review: Mental Math, Graphs, Likelihood | 18. Review: Perimeter and Area |
| | 7. Review: Addition and Subtraction Computation | 19. Review: Problem Solving |
| | 8. Quiz 2 | 20. Quiz 5 |
| | 9. Review: Fractions and Decimals | 21. Special Project* |
| | 10. Review: Add and Subtract Mixed Numbers and Fractions | 22. Review Game |
| | 11. Review: Finding Missing Numbers | 23. Test |
| | 12. Quiz 3 | 24. Alternate Test* |
| | 25. Reference | |

(*) Indicates alternative assignment