

MATHEMATICS

Children's Encyclopedia of Mathematics

(Gr. 4-8) (42/6-13 Min.) (Purchase-\$48.00) (Rights-School Year)

Block Feed Programs: 1-29: 12-6-06; 2:00-5:59AM

Block Feed Programs: 30-42: 12-7-06; 2:00-3:55AM

Block Feed Programs: 1-20: 4-5-07; 3:15-5:53AM

Block Feed Programs: 21-42: 4-6-07; 2:00-5:16AM

Block Feed Programs: 1-29: 5-15-07; 2:00-5:59AM

Block Feed Programs: 30-42: 5-16-07; 2:00-3:55AM

Correlation to Competencies from Miss. Mathematics 2000 Framework

4th grade #1 Explore and discover properties and relationships of number patterns.

#6 Identify numerical relationships with whole numbers, decimals, and fractions.

#7 Utilize the four basic operations for whole numbers and the addition and subtraction of decimals and fractions.

5th grade #4 Explain and explore relationships of whole numbers, fractions, mixed numerals, decimals, and percents.

#5 Use basic operations to investigate and apply whole numbers, fractions, mixed numbers, and decimals.

6th grade #1 Apply the use of algebraic functions, patterns, sequences, and language.

#6 Recognize and use place value, and order of whole and decimal numbers.

#8 Determine multiple relationships among ratios, proportions, decimal numbers, percents, and fractions.

#9 Explore the relationships between fractions and mixed numerals.

7th grade #1 Apply concepts and perform the basic operations with decimals, fractions, and mixed numbers.

#6 Develop and apply the basic operations of integers.

#7 Create and apply algebraic expressions and equations.

#8 Survey and apply concepts of ratio, proportion, and percent.

8th grade #1 Apply concepts and perform basic operations using real numbers.

#3 Use properties to create and simply algebraic expressions and solve linear equations and inequalities.

#4 Apply the concepts of ratio, proportion, and percent to solve real-life problems.

Pre-Algebra #1 Explain, classify, and perform basic operations on the set of real numbers.

#2 Solve, check, and graph linear equations and inequalities in one variable.

#5 Use concepts of probability and statistics to interpret information.

#7 Use and apply properties and formulas to solve geometric problems.

Mathematics Benchmarks Addressed:

4th grade #2 Orders and compares six-digit whole numbers, decimal numbers through hundredths, and fractions with denominators of twelve or less.

#4 Identifies, draws and models equivalent fractions.

#5 Uses real-life objects to represent, draw, and explain the relationships between fractions and decimals.

#32 Adds and subtracts decimals to tenths, hundredths, and thousandths.

#36 Adds and subtracts fractions with like and unlike denominators.

5th grade #1 Compares and orders nine-digit whole numbers, decimals to the nearest thousandth, like and unlike fractions, and mixed numerals using appropriate symbols.

#5 Models and shows relationships among fractions, decimals, and percents.

#6 Models, identifies, and writes equivalent fractions including improper fractions and mixed numerals with like and unlike denominators.

#29 Adds and subtracts like/unlike fractions and mixed numerals.

#30 Adds and subtracts decimals.

6th grade #28 Reads, writes, and rounds twelve-digit whole numbers.

#30 Reads, writes, and rounds decimal numbers to the nearest ten-thousandth.

#35 Multiplies a three-digit decimal number by a two-digit decimal number.

49 Mississippi Public Broadcasting Instructional Programming 2006-2007

#36 Divides a five-digit decimal number by a two-digit decimal number.

Mathematics Benchmarks Addressed:

6th grade #43 Uses the greatest common factor (GCF) to simplify fractions.

#44 Uses the least common multiple (LCM) to find common denominators.

#45 Converts among fractions, decimals, and percents.

#48 Compares and orders fractions as well as mixed numbers.

#49 Determines equivalent forms of fractions.

#52 Adds and subtracts mixed numerals with and without regrouping, expressing the answer in simplest form using like and unlike denominators .

#53 Multiplies and divides proper fractions as well as mixed numerals expressing the answer in simplest form.

7th grade #41 Compares, orders, rounds, and estimates decimals.

#42 Adds, subtracts, multiplies, and divides decimals in real-life situations with and without calculators.

#43 Converts among decimals, fractions, and mixed numbers.

#45 Adds, subtracts, multiplies, and divides fractions and mixed numbers.

8th grade #40 Identifies, compares, and orders fractions and decimals.

#42 Solves real life problems involving addition, subtraction, multiplication, and division of fractions, decimals, and mixed numbers.

This is a very comprehensive math series using computer animation and music to make learning fun and entertaining.

1. Meeting Numbers: The Big Story
2. Meeting Numbers: Shape Up

3. Meeting Numbers: Something is Missing
4. Meeting Numbers: The Beast of Ragoon Lagoon
5. Meeting Numbers: Muchmore's Marvelous Machine
6. Meeting Numbers: The Magic Square
7. Whole Numbers: Array Back When
8. Whole Numbers: Nuts to You
9. Whole Numbers: Double Trouble
10. Whole Numbers: It's a Small World
11. Whole Numbers: How Big is a Million?
12. Whole Numbers: A Thousand and One Naughts
13. Multiplication & Division of Fractions: Multiplying with Fractions
14. Multiplication & Division of Fractions: Mac's Factory, or Shortcuts in Multiplying
with

Fractions

15. Multiplication & Division of Fractions: Multiplying with Fractions: Distributivity
16. Multiplication & Division of Fractions: Dividing with Fractions: Missing Factor
Method
17. Multiplication & Division of Fractions: Reciprocals - Multiplicative
18. Multiplication & Division of Fractions: Dividing with Fractions: Reciprocal Method
19. Multiplication & Division of Fractions: The Remainder in Division
20. Decimals: Decimal Names for the Rational Numbers
21. Decimals: Decimal Equivalents for Fractions
22. Decimals: Multiplying with Decimals
23. Decimals: Dividing with Decimals
24. Decimals: Rounding
25. Pre-Algebra: Ratio
- 50 Mississippi Public Broadcasting Instructional Programming 2006-2007
26. Pre-Algebra: Exploitation of Errors
27. Pre-Algebra: Probability
28. Pre-Algebra: Product of Two Negative Numbers
29. Pre-Algebra: The Biggest Rectangle
30. Pre-Algebra: Hidden Treasure
31. Pre-Algebra: Graphing Inequalities
32. Pre-Algebra: Solving Pairs of Equations
33. Pre-Algebra: Games
34. Meeting Fractions: Between the Whole Numbers
35. Meeting Fractions: Equivalent Fractions
36. Meeting Fractions: Comparing Rational Numbers
37. Meeting Fractions: Between the Rational Numbers
38. Using Fractions to Add and Subtract: Adding with Fractions
39. Using Fractions to Add and Subtract: Using Equivalent Fractions to Compute Sums
40. Using Fractions to Add and Subtract: Addition with Mixed Numerals
41. Using Fractions to Add and Subtract: Subtracting with Fractions
42. Using Fractions to Add and Subtract: Subtraction with Mixed Numerals

MathAmerica

(Gr. 1-5) (16/10-32 Min.) (Purchase-\$48.00) (Rights-Unlimited)

Block Feed Programs: 1-10: 9-21-06; 2:00-5:45AM

Block Feed Programs: 11-16: 9-22-06; 2:00-3:52AM

Block Feed Programs: 1-10: 1-18-07; 2:00-5:45AM

Block Feed Programs: 11-16: 1-19-07, 2:00-3:52AM

Block Feed Programs: 1-10: 5-18-07; 2:00-5:45AM

Block Feed Programs: 11-16: 5-19-07; 2:00-3:52AM

Correlation to Competencies from Miss. Mathematics 2000 Framework

1st grade #1 Model, recognize, and create visual number patterns.

#3 Explore the concepts of length, weight, and capacity using nonstandard and standard (English and metric) units of measurement.

#8 Explore, model, and recognize relationships involving addition and subtraction for numbers zero to ten.

2nd grade #2 Determine length, weight, and capacity using the appropriate standard (English and metric) units of measurement.

#5 Identify the monetary values of coins and the dollar bill.

#6 Perform and apply the basic operations of addition, subtraction, and multiplication for solving mathematical problems.

3rd grade #1 Explore, model, and create patterns.

#3 Develop the process of measurement and related concepts.

#7 Model, identify, and apply the four basic operations.

4th grade #1 Explore and discover properties and relationships of number patterns.

#3 Develop the process of measurement and the concepts related to units

51 Mississippi Public Broadcasting Instructional Programming 2006-2007 of measurement.

#6 Identify numerical relationships with whole numbers, decimals, and fractions.

#7 Utilize the four basic operations for whole numbers and the addition and subtraction of decimals and fractions.

5th grade #2 Develop concepts and process of measuring related to units of measure.

#4 Explain and explore relationships of whole numbers, fractions, mixed numerals, decimals, and percents.

#5 Use the basic operations to investigate and apply whole numbers, fractions, mixed numbers, and decimals.

Mathematics Benchmarks Addressed:

1st grade #1 Identifies, represents, extends, explains, and describes patterns

#2 Creates, extends, and records patterns using a wide variety of materials

and procedures including the number patterns 2's, 5's, and 10's

- #9 Uses nonstandard and standard units to explore length
- #10 Compares weights of objects
- #11 Explores and estimates capacity of various containers in nonstandard units
- #26 Explores different concepts of addition and subtraction, and writes equations that compare them
- #27 Demonstrates that addition and subtraction are inverse operations
- #28 Computes basic facts 0 to 10 for addition and subtraction with and without manipulative
- # 32 Identifies the value of coins
- # 33 Determines the value of like coins up to \$1.00
- # 34 Determines the value of mixed coins up to \$1.00
- # 35 Finds equal money amounts with different coin combinations up to \$.25

2nd grade

- #1 Identifies, models, and extends, figure patterns
- #8 Uses appropriate tools and terms to explore measurement
- #9 Estimates and measures length, weight, and capacity using standard units of measurement
- #10 Categorizes measurement terms according to length, weight, and capacity
- #22 Computes the basic facts 0 to 18 for addition and subtraction with and without manipulative
- #23 Adds and subtracts to find missing addends and subtrahends
- #24 Uses the inverse relationship of addition and subtraction
- #26 Adds two and three-digit whole numbers with and without regrouping
- #27 Subtracts two-digit whole numbers with and without regrouping
- #29 Models and multiplies numbers 0 to 5 using repeated addition
- #31 Selects and uses the appropriate symbols for dollars and cents

2nd grade

- #32 Identifies quarters and half-dollars to count groups of coins
- #33 Determines the value of money up to \$5.00
- #34 Compares given amounts of money up to \$ 5.00
- #35 Finds equal money amounts with different coin and dollar combinations
- #36 Make change up to \$1.00
- #37 Computes multiplication facts 0 to 5

3rd grade

- #1 Recognizes, describes, and extends patterns
- #2 Creates patterns using manipulative

52 Mississippi Public Broadcasting Instructional Programming 2006-2007

- #12 Finds measurement of length to the nearest millimeter in the metric system and one-eighth inch in the English system
- #13 Determines appropriate units of measurement for mass, length, distance, volume, and time in the standard (English and metric) systems

This 16-part series was produced by a team of award-winning math educators who have built a comprehensive series of math tutorial videos. MathAmerica was developed to

teach younger students preschool through 5th grade math concepts in a fun, non-threatening way. The series is fully animated with bright colors and illustrations so students can easily follow and understand the material presented.

1. Patterns
 2. Subtraction
 3. Money
 4. Measurement
 5. Addition and Subtraction
 6. Sums to 18
 7. Subtraction Facts
 8. 2 & 3 Digit Addition
 9. Understanding Multiplication
 10. Multiplication Review
 11. Understanding Division
 12. Dividing by 4 & 5
 13. Multiplication with 2 Digit Factors
 14. Metric Measurement
 15. Understanding Fractions
 16. Understanding Decimals
- #3 Demonstrates and explains the relationship between numeration and patterns
- #22 Identifies and compares differences among length, weight/mass, and capacity/volume (English and metric measures)
- #23 Chooses appropriate units of measurement for length, weight/mass, and capacity/volume
- #26 Compares metric measurements to English measurements
- #27 Measures using various types of instruments
- #43 Recalls multiplication facts 0 to 5
- #44 Models, explores, and states multiplication facts 6 to 12, and division facts 1 to 12
- #52 Counts change from \$5.00 or less
- 4th grade #5 Uses real-life objects to represent, draw, and explain the relationships between fractions and decimals
- #8 Counts change to \$10.00
- #9 Recognizes, describes, and extends a given pattern
- #10 Analyzes a given pattern and generates a similar pattern
- #14 Measures a given object to the nearest fourth of an inch
- #33 Multiplies whole numbers by one-digit multipliers and divides by one-digit divisors with and without remainders
- 5th grade #5 Models and shows relationships among fractions, decimals, and percents
- #6 Models, identifies, and writes equivalent fractions including improper
- 53 Mississippi Public Broadcasting Instructional Programming 2006-2007
-

Operation Algebra

(Gr. 6 – 12) (10/35 Min.) (School Year)

Block Feed Programs: 1-6: 12-2-06; 2:00-5:30AM
Block Feed Programs: 7-10: 12-5-06; 2:00-4:20AM
Block Feed Programs: 1-4: 4-3-07; 3:25-5:45AM
Block Feed Programs: 5-10: 4-4-07; 2:00-5:30AM
Block Feed Programs: 1-6: 5-10-07; 2:00-5:30AM
Block Feed Programs: 7-10: 5-11-07; 2:00-4:20AM

1. Introduction to Linear Relations
 2. Introduction to Linear Systems
 3. Linear Equations: $Ax + By = C$
 4. Linear Equations: $y=mx + b$
 5. Properties of Exponents
 6. Slope of a Line
 7. Solving Equations with Variables on Both Sides of the Equal Sign ($ax+b=cx+d$)
 8. Transforming Formulas
 9. Using Tables to Graph Equations
 10. Zero and Negative Exponents
-

Power of Algebra

(Gr. 6 - 9) (10/16 Min.) (Purchase-\$32.00) (New Program for 2005-2006)

Block Feed Programs: 1-2: 9-30-06; 5:25-5:55AM
Block Feed Programs: 3-10: 10-3-06; 2:00-4:01AM
Block Feed Programs: 1-10: 4-17-07; 2:00-4:32AM

The programs in this series explore all of the facts of the algebra process. It explores the properties of addition and multiplication of numbers and variables. Other programs in the series define terms used in algebra. This visual demonstration of algebra and its processes add depth to a teacher's classroom instruction.

Program Titles:

1. Basic Properties
2. Factoring 1
3. Factoring 2
4. Fraction
5. Inverse Operations
6. Order of Operations
7. Polynomials & Equations

54 Mississippi Public Broadcasting Instructional Programming 2006-2007

8. Positive and Negative Numbers

9. Using Positive Exponents

10. Words of Symbols