

GRADE 3 MATHEMATICS

The Third Grade Math Program is a “hands-on”, success-oriented program that emphasizes manipulative and mental math. The series addresses the multisensory approach to teaching and is designed for heterogeneously grouped children. Its use will enable all children to develop a solid foundation in the language and basic concepts of mathematics. In this program, concepts are presented in carefully selected group activities. All areas of mathematics are integrated so that children see the interrelationships.

Number Sense

Students will:

- Create place value charts to the ten thousandths
- Find number patterns
- Compare numbers
- Order numbers
- Round 2 digit, 3 digit and 4 digit numbers
- Relate addition/subtraction and multiplication/division
- Identify odd and even numbers
- Round numbers to the nearest 10
- Write numbers in expanded form

Addition:

Students will:

- Focus on the addition properties
- Estimate sums
- Regroup ones and tens
- Complete column addition
- Add greater numbers

Subtraction

Students will:

- Focus on subtraction rules
- Estimate differences
- Regroup tens and hundreds
- Subtract across zeros
- Subtract greater numbers

Money

Students will:

- Learn the value of money
- Count coins and bills
- Make change
- Compare money amounts
- Round money
- Write money amounts using cent and dollar signs

Data

Students will:

- Collect and organize data
- Explore range, median, mode and mean
- Create line plots
- Make a table
- Make a pictograph
- Make a bar graph
- Read graphs with ordered pairs

Probability

Students will

- Identify outcomes
- Make predictions
- Use spinners and tiles to understand probability

Multiplication

Students will:

- Identify and use the multiplication sign and algorithm
- Multiply by numbers 1 through 10
- Learn the commutative property of multiplication
- Understand how to read a multiplication table
- Find patterns on a multiplication table
- Multiply with three numbers
- Multiply multiples of 10, 100, 1,000
- Multiply 2 digit numbers by one digit number
- Multiply 3 digit numbers by one digit number
- Multiply money

Division

Students will:

- Find equal groups to understand the concept of division
- Model division on a number line
- Divide by 1-10
- Divide using a multiplication table
- Use fact families to show relationships between division and multiplication
- Divide multiples of 10, 100, 1,000
- Divide two digit numbers by one digit divisor
- Find quotients by dividing three digit numbers by one digit numbers
- Divide money

Clocks and Measurement

Students will:

- Learn to tell time to the nearest hour, half hour, quarter hour
- Learn to tell time to the nearest 5 minutes, minute
- Determine elapsed time using clocks
- Identify a.m. and p.m.
- Use a calendar
- Tell temperature in degrees Fahrenheit and Celsius
- Identify boiling and freezing temperatures
- Shade thermometers to show temperatures
- Learn normal body temperature
- Use a ruler to measure to the nearest inch, half inch,
- Use customary units of length. (foot, yard, mile)
- Estimate length
- Measure using cups, pints, quart, gallon
- Use customary units of weight (pound, ounce)
- Order containers by volume
- Measure with centimeter and millimeter
- Measure lengths in metric units (meters, kilometers)
- Measure units with liter and milliliter
- Measure units of mass (gram, mass, kilogram)

Geometry

Students will:

- Identify lines and line segments
- Identify segments, rays and angles
- Identify parallel, intersecting and parallel lines
- Classify plane figures
- Classify triangles
- Classify quadrilaterals
- Identify and classify solid figures
- Learn about congruent figures
- Recognize lines of symmetry
- Practice showing transformations
- Learn geometric figures

Perimeter, Area, and Volume

Students will:

- Estimate perimeter
- Find perimeter
- Estimate area
- Find area
- Estimate volume
- Find volume

Fractions

Students will:

- Read fractions
- Model parts of a group
- Draw models of fractions
- Find parts of a group
- Use equivalent fractions to name parts of a whole
- Identify equivalent fractions
- Write fractions greater than 1
- Compare fractions
- Order fractions
- Add fractions
- Subtract fractions

Decimals

Students will:

- Write fractions with denominators of ten and hundred as decimals
- Find the relationship between mixed numbers and decimals
- Compare and order decimals
- Relate decimals, fractions, and money
- Add decimals
- Subtract decimals

Problem Solving

Students will:

- Choose a method to solve a problem
- Solve using different types of graphs
- Explain how they get an answer
- Use probability to understand problem
- Use comparison symbols to solve problems
- Make organized lists
- Draw a picture
- Use a schedule
- Use logical reasoning
- Use visual thinking to solve problems
- Work backwards to solve problems
- Work on multi-step problems
- Choose the correct operation to use when solving a problem

Materials

- Houghton Mifflin Math Teacher's Edition
- Houghton Mifflin Math Students' Edition
- Houghton Mifflin Practice Books

- Houghton Mifflin lesson transparencies
- Houghton Mifflin teaching transparencies
- Houghton Mifflin test prep transparencies
- Houghton Mifflin chapter resources
- Houghton Mifflin masters
- Manipulatives
- Overhead projector and transparencies
- White board workmats
- Expo markers
- Chalkboard

Instruction

The following are the components of the each math lesson: 1. Problem of the Day
2. The lesson 3. Written Work 4. Facts Practice 5. Assessment.

Teachers will:

- Review previously taught concepts
- Introduce the new lesson
- Use and employ manipulatives to enhance learning
- Assign and evaluate homework
- Conference with students to assess learning
- Test and evaluate students to assess learning

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