Greenwich Public Schools
Middle School
Mathematics Program
The Greenwich Public Schools Mathematics program encourages all students to reach their highest potential by developing comprehension of mathematical concepts, operations and basic skills.
MATHEMATICS VISION STATEMENT

- All students will acquire skills to carry out procedures accurately, efficiently and appropriately.

- All students will demonstrate the ability to formulate, represent and solve mathematical problems.

- All students will develop the capacity for logical thought, reflection, explanation and justification.

- All students will view mathematics as sensible, useful and worthwhile, coupled with a belief in diligence and confidence in one’s ability.
The Content Standards

1. Numerical and Proportional Reasoning
2. Geometry and Measurement
3. Probability and Statistics
4. Algebraic Reasoning
From the Elementary Program to the Middle School Program

Everyday Mathematics is the Pre-Kindergarten through Grade 5 math program.

The middle school Connected Math materials were selected because they are compatible with the Pre-Kindergarten – Grade 5 math program.
The Middle School Mathematics Program
The Grade 6 Programs

- Math 6
- Math 6A
- Pre-Algebra 6
The Grade 7 Programs

- Math 7
- Pre-Algebra 7
- Algebra 7
The Grade 8 Programs

- Pre-Algebra 8
- Algebra 8
- Geometry 8
# The Middle School Sequence

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Placement Guidelines: Math 6A

Grade 4 CMT Math Scaled Score of 290 or higher

Demonstrated Mastery of Concepts and Skills on District-Wide Assessment with a score of at least 70%

5th Grade Teacher’s Recommendation
The District-Wide Assessment for Math 6A

- Contains a wide mix of items that range from basic computation to word problems
- Includes percent problems, ratio & proportion problems, and operations on decimals and fractions
- Also tests estimation skills
Placement Guidelines: Grade 6 Pre-Algebra

- Grade 4 CMT Math Scaled Score of 320 or higher

- Demonstrated Mastery of Concepts and Skills on
  1. District-Wide Assessment, with a score of at least 88%
  2. Pre-Algebra Placement Exams
     - Math Achievement Exam
     - Math Abilities Exam
     - Problem Solving Assessment

- 5th Grade Teacher’s and Coordinator’s Recommendations
Pre-Algebra 6 Placement Assessments

Mathematics Achievement Exam
- Standardized test of 50 questions
- 40 minute timed test

Mathematics Reasoning Exam
- Standardized test of 50 questions
- 20 minute timed test

Mathematics Problem Solving Assessment
- Math word problems
- 8 questions, of which two require a written explanation
- 40 minute timed test
The Following are Examples of Test Items on the District-wide Math Placement Exam
Operations on Numbers

Examples:

1. $238 + 62 + 771 = \quad \quad +$

2. $5,394 \div 33 =$

3. $230 \times 41 =$

4. $4,909 - 3,062 =$
Operations with Fractions

Examples:

5. \( \frac{3}{5} + \frac{2}{10} = \)

6. \( 4 \frac{5}{6} + 1 \frac{1}{2} = \)

7. \( 2 \frac{7}{8} \times 4 \frac{2}{3} = \)
Operations with Fractions & Decimals

Examples:

8. Write $\frac{7}{8}$ as a decimal to the nearest hundredths.

9. Order from smallest to largest:
   $\frac{3}{5}$, $\frac{5}{8}$, $\frac{2}{3}$

10. Write 0.6 as a fraction in lowest terms.
Examples:

11. Write “nine thousandths” as:
   a) a fraction
   b) a decimal

12. Estimate the solution to the nearest whole number:
    37.2 ÷ 7.7
Operations with Percents

Examples:

13. Write $\frac{12}{20}$ as a percent.

14. Compute the discounted price on an item that normally costs $126.00, and is now on sale for 30% off.
Operations with Ratios & Proportions

Examples:

15. \( 5 : 12 = 15 : x \)

16. \( \frac{2}{3} = \frac{a}{9} \)
Word Problems

Example:

17. For each item that Sid buys at the regular price of $12.00, he can get a second one at half off the regular price.

What will be the total cost of 6 items before any tax is added?
Example:

19. For five weeks, Ellen’s class collected canned food for a food drive.
   - Week 1 - they collected 23 cans
   - Week 2 - they collected 20 cans
   - Week 3 - they collected 16 cans
   - Week 4 - they collected 37 cans
   - Week 5 - they collected 24 cans

What was the average number of cans collected for the five week period?
Example:

20. John and Ben made up a game using a single die. They can throw the die as many times as they want, but must get as close to 11 as they can without going over. John went first and rolled a 5 and a 4 on his first two throws. Should he roll again? Explain your decision.
The Summer Bridge Program
An Alternative Route to Math 6A

- Available to students who are recommended by their fifth grade teacher
- The Bridge Program is scheduled during normal Summer School hours
- Placement Test will be given during the last week of Summer School
Additional information, including curriculum documents and a copy of this presentation, can be found online at:

www.greenwichschools.org

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