



# MathScape

**Seeing and Thinking Mathematically**

**Course 1**

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STANDARDS	PAGE REFERENCES
<b>1. NUMBER OPERATIONS AND CONCEPTS</b>	
<b>Students use numbers, number sense, and number relationships in a problem-solving situation.</b>	
1. Students use the concept of place value to read and write decimals (to 1000ths) in words, standard, and expanded form.	<b>Student Edition:</b> 62-63, 64-65, 76-77, 80, 81, 212-213, 256-257 <b>Teacher's Guide:</b> 62A, 63A, 63, 64A, 65A, 76A, 212A
2. Students multiply decimals (10ths & 100ths) and divide whole numbers by 2-digit divisors and divide decimals by whole numbers.	<b>Student Edition:</b> 222-223, 224-225, 226-227, 228-229, 261, 262, 263, 264 <b>Teacher's Guide:</b> 222A, 223A, 224A, 225A, 226A, 227A
3. Students represent the number line using integers.	<b>Student Edition:</b> 244-245, 246-247, 250-251, 270, 271, 273 <b>Teacher's Guide:</b> 244A, 245, 246, 247A, 247, 250A, 250
4. Students explain their choice of estimation and problem solving strategies and justify results when performing number operations with fractions and decimals in problem-solving situations.	<b>Student Edition:</b> 125-126, 134-135, 136-137, 138-139, 140-141, 151, 152, 154, 155, 156, 157, 158, 159, 161, 220-221, 224-225, 228-229, 260, 261, 262, 263, 264

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5. Students identify prime and composite numbers and apply prime factorization to numbers less than 100.	<b>Student Edition:</b> 98-99, 100-101, 142, 143 <b>Teacher's Guide:</b> 94, 98A, 99A, 99, 100A
6. Students demonstrate an understanding of fractions and decimals by: <ul style="list-style-type: none"> <li>• representing fractions as division of whole numbers;</li> <li>• converting between mixed numbers and improper fractions;</li> <li>• simplifying fractions and mixed numbers;</li> <li>• writing fractions in equivalent forms;</li> <li>• using parts of a set;</li> <li>• rounding decimal numbers to 10ths, 100ths, and whole numbers (units) place; and</li> <li>• converting between decimals (from .01 to .99), fractions and representing percentages.</li> </ul>	<b>Student Edition:</b> 108-109, 110-111, 112-113, 114-115, 122-123, 130-131, 136, 147, 148, 149, 150, 153, 156, 210-211, 212-213, 216-217, 232-233, 234-235, 256, 257, 259, 264, 265, 266 <b>Teacher's Guide:</b> 110A, 111A, 113A, 115A, 122A
7. Students add and subtract mixed numbers with like denominators.	<b>Student Edition:</b> 122-123, 124-125, 126-127, 153, 154, 155 <b>Teacher's Guide:</b> 122A, 123A, 124A, 126A
8. Students represent repeated multiplication in exponential form.	<b>Student Edition:</b> 72-73, 74-75, 78-79, 88, 89, 102, 145, 318 <b>Teacher's Guide:</b> 74A, 74, 75A
<b>2. GEOMETRY</b>	
<b>Students apply geometric concepts, properties, and relationships in a problem-solving situation.</b>	
1. Students classify, describe, compare, and draw representations of 1- and 2-dimensional objects and angles.	<b>Student Edition:</b> 176-177, 178-179, 180-181, 198, 199, 200 <b>Teacher's Guide:</b> 174, 175, 176A, 178A, 180A
2. Students identify and classify congruent objects by properties appropriate to grade level.	<b>Student Edition:</b> 186-187, 188-189

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3. Students communicate the reasoning used in identifying geometric relationships in problem-solving situations appropriate to grade level.	<b>Student Edition:</b> 182-183, 190-191, 199, 202, 204 <b>Teacher's Guide:</b> 183A, 183, 187A
<b>3. MEASUREMENT</b>	
<b>Students use a variety of tools and techniques of measurement in a problem-solving situation.</b>	
1. Students apply estimation and measurement of length to content problems and express the results in metric units (centimeters and meters).	<b>Student Edition:</b> 259, 292-293, 296-297, 313, 314, 315 <b>Teacher's Guide:</b> 292A, 293A, 293
2. Students apply estimation and measurement of weight to content problems and express the results in U.S. customary units (ounces, pounds, and tons).	See Glencoe's <i>MathScape: Seeing and Thinking Mathematically Course 2</i> © 2005. <b>Student Edition:</b> 6-7, 8-9, 10-11, 35-36, 40
3. Students apply estimation and measurement of capacity to content problems and express the results in U.S. customary units (teaspoons, tablespoons, cups, pints, quarts, gallons).	With teacher explanation and comparison, this standard can be met. See Glencoe's <i>MathScape: Seeing and Thinking Mathematically Course 2</i> © 2005. <b>Student Edition:</b> 20-21, 40
4. Students demonstrate relationships within the U.S. customary units for weight and capacity and within the metric system (centimeters to meters) in problem-solving situations.	With teacher explanation and comparison, this standard can be met. See Glencoe's <i>MathScape: Seeing and Thinking Mathematically Course 2</i> © 2005. <b>Student Edition:</b> 6-7, 8-9, 10-11, 20-21, 35-36, 40, 140-141, 142-143, 168-169
5. Students determine the area and perimeter of regular polygons and the area of parallelograms, with and without models.	<b>Student Edition:</b> 158, 182-183, 201, 282-283, 284-285, 294-295, 304-305, 318 <b>Teacher's Guide:</b> 182A, 285A, 294A, 295A, 304A

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<b>4. ALGEBRA</b>	
<b>Students use algebraic methods to investigate, model, and interpret patterns and functions involving numbers, shapes, data, and graphs in a problem-solving situation.</b>	
1. Students recognize, describe, extend, create, and generalize patterns, such as numeric sequences, by using manipulatives, numbers, graphic representations, including charts and graphs.	<b>Student Edition:</b> 324-325, 326-327, 328-329, 332-333, 334-335, 336-337, 344-345, 348-349, 350-351, 354, 355, 356, 357, 358, 359 <b>Teacher's Guide:</b> 323, 326A, 346-347
2. Students apply their knowledge of patterns to describe a constant rate of change when solving problems.	<b>Student Edition:</b> 344-345, 362 <b>Teacher's Guide:</b> 344A, 345A
3. Students represent the idea of a variable as an unknown quantity, a letter, or a symbol within any whole number operation.	<b>Student Edition:</b> 332-333, 334-335, 336-337, 357, 358, 359 <b>Teacher's Guide:</b> 332A, 333A, 334A, 337A
<b>5. DATA ANALYSIS AND PROBABILITY</b>	
<b>Students use data analysis and probability to analyze given situations and the results of experiments.</b>	
1. Students systematically collect, organize, and describe/represent numeric data using line graphs.	<b>Student Edition:</b> 22-23, 24-25, 26-27, 42, 43, 44 <b>Teacher's Guide:</b> 22A, 25, 26A
2. Students, given a scenario, recognize and communicate the likelihood of events using concepts from probability (i.e., impossible, equally likely, certain) appropriate to grade level.	<b>Student Edition:</b> 30-31, 32-33, 34-35, 45, 46, 47 <b>Teacher's Guide:</b> 28-29, 30A, 31A, 32A, 33A, 34A, 35A