

OR 2007 Mathematics Standards for Gr 3. Compared to Teacher to Teacher Publications' Making Sense of Problem Solving

OR Grade 3 "fills the gaps"	Making Sense of Problem Solving
3.1 Number and Operations: Develop an understanding of fractions and fraction equivalence	
3.1.1 Represent common fractions (e.g., halves, thirds, fourths, tenths) as equal parts of a whole, parts of a set, or points or distances on a number line.	D.4 Brownies p. 2-5, 12-17; D.5 Color Me Green p. 2-10, 18-23
3.1.2 Recognize and demonstrate that sizes of fractional parts are relative to the size of the whole.	D.5 Color Me Green p. 2-10, 18-23; D.6 Ship Shape p. 2-8, 14-19
3.1.3 Use fractions to represent numbers that are equal to, less than, or greater than one.	D.4 Brownies p. 2, 4-5; D.5 Color Me Green p. 6-7, 9-10, 18-23; D.6 Ship Shape p. 2-8, 14-19
3.1.4 Solve problems that involve comparing and ordering fractions by using models, benchmarks (0, $\frac{1}{2}$, 1), or common numerators or denominators.	D.6 Ship Shape p. 2-8, 14-19
3.1.5 Identify equivalent fractions using models, including the number line.	D.4 Brownies p. 2-5, 12-17
3.1.6 Add common fractions with like denominators.	
3.2 Number and Operations, Algebra, and Data Analysis: Develop understandings of multiplication and division, and strategies for basic multiplication facts and related division facts.	
3.2.1 Represent and apply the concept of multiplication as repeated addition.	Level E: Section 1 p. 36-38 ;D.1 Blooming Flowers p. 2-7, 13-19
3.2.2 Represent and apply the concept of division as repeated subtraction and	D.2 Art Class p. 2-7, 14-19
3.2.3 Apply models of multiplication (e.g., equal-sized groups, arrays, area models, equal "jumps" on number lines and hundreds charts) and division (e.g., repeated subtraction, partitioning, and sharing) to solve problems.	Level E: Section 1 p. 20-22, 64-65; D.1 Blooming Flowers p. 2-7; 13-19; D.2 Art Class p. 2-7, 14-19
3.2.4 Apply increasingly sophisticated strategies based on the number properties (e.g., place value, commutative, associative, distributive, identity, and zero) to solve multiplication and division problems involving basic facts.	D.2 Art Class p. 2; D.3 Room Change p. 2
3.2.5 Apply the inverse relationship between multiplication and division (e.g., $5 \times 6 = 30$, $30 \div 6 = 5$) and the relationship between multiples and factors.	D.11 Legs, Legs, Legs
3.2.6 Represent, analyze and extend number patterns using rules that involve multiplication and/or addition (e.g., $\{3, 6, 9, 12, \dots\}$, $\{1, 2, 4, 8, \dots\}$).	Level E: Section 1 p. 25-28; D.10 Garden Problems p. 2-6, 12-17
3.2.7 Analyze frequency tables, bar graphs, picture graphs, and line plots; and use them to solve problems involving addition, subtraction, multiplication, and division.	Level E: Section 1 p. 29-30; D.13 Weather Report p. 2-6, 13-18; D.14 Ordering Ice Cream p. 4-7, 15-20

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3.3 Geometry and Measurement: Describe and analyze properties of two-dimensional shapes, including perimeters.

3.3.1 Identify right angles in two-dimensional shapes and determine if angles are greater than or less than a right angle (obtuse and acute).	D.7 What's My Shape p. 2
3.3.2 Identify, describe, compare, analyze, and informally classify triangles by their sides and angles.	Level E: Section 1 p. 39-41
3.3.3 Identify, describe, compare, analyze, and classify quadrilaterals (square, rectangle, parallelogram, rhombus, and trapezoid) by their sides and angles.	Level E: Section 1 p. 39-41; D.7 What's My Shape p. 3-4, 7
3.3.4 Identify, describe, and compare pentagons, hexagons, and octagons by the number of sides or angles.	Level E: Section 1 p. 39-41
3.3.5 Investigate and describe the results of decomposing, combining, and transforming polygons to make other polygons.	D.9 5,4,3,2, 1... p. 2-9, 15-20 (reflection, translation, rotation)
3.3.6 Build, draw, and analyze two-dimensional shapes to understand attributes and properties of two-dimensional space.	D.4 Brownies p. 2-5, 12-17; D.7 What's My Shape p. 2-8, 16-21
3.3.7 Determine an appropriate unit, tool, or strategy to find the perimeter of polygons.	D.12 Fancy Frame p. 2-6, 13-18 (Perimeter with measurement, including fractional inches)
3.3.8 Use attributes and properties of two-dimensional shapes to solve problems including applications involving parallel and perpendicular lines, congruence, symmetry, and perimeter.	D.4 Brownies p. 2-5, 12-17; D.8 Butterfly Wings p. -6, 12-17; D.12 Fancy Frame p. 3-6, 13-18