



**Making Sense of Problem Solving:  
Targeting Washington 2008 Mathematics Standards**

**Level A (Kindergarten)**

***BOOK 1: Developing a Problem Solving Environment***

Chapter A: Readiness for Problem Solving

Chapter B: Fostering Critical Thinking

Chapter C: Creating and Sustaining a Safe Classroom Environment

***BOOK 2: Whole Numbers; Patterns and Operations***

A.1	More or Less or the Same? K.1.F	Comparing Sets
A.2	A String of Beads K.2.A, K.2.B	Extending Repeating Patterns
A.3	Wheels on the Bus K.1.H, K.2.C, K.2.D	Joining Sets
A.4	Five Little Monkeys K.1.G, K.2.C, K.2.D	Separating Sets

***BOOK 3: Objects and their Locations***

A.5	Over and Under K.3.C	Spatial Orientation
A.6	Be a Builder K.3.A	Construct More Complex 3-D Shapes
A.7	Block and Roll K.3.A, K.3.B	Spatial Reasoning with 3-D Shapes
A.8	Where Does It Go? K.3.B	Using Sorting Rules

***BOOK 4: Objects and their Locations; Additional Key Content***

A.9	How Do I Get There from Here? K.3.C	Following Directions
A.10	A Weighty Decision K.4.A	Comparing Weight
A.11	Longer, Shorter or the Same? K.4.A	Compare Lengths with a 3 <sup>rd</sup> Object
A.12	Going to Great Lengths K.4.A	Sorting and Ordering Objects by Length



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**Level B (Grade 1)**

***BOOK 1: Developing a Problem Solving Environment***

Chapter A: Readiness for Problem Solving

Chapter B: Fostering Critical Thinking

Chapter C: Creating and Sustaining a Safe Classroom Environment

***BOOK 2: Whole Number Relationships; Addition and Subtraction***

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|-----|------------------------------------------------------|------------------------------------|
| B.1 | How Many Buttons<br>1.2.A, 1.2.B, 1.2.H              | Joining Sets                       |
| B.2 | Time for Tea<br>1.1.E                                | Comparing and Ordering Sets        |
| B.3 | Ladybugs<br>1.1.F, 1.1.G, 1.2.A, 1.2.B, 1.2.E, 1.2.H | Joining, Result Unknown            |
| B.4 | Matching Mittens<br>1.1.H, 1.1.I, 1.2.I              | Even and Odd                       |
| B.5 | Who's on First?<br>1.1.D, 1.3.B                      | Ordinal Numbers & Geometric Shapes |

***BOOK 3: Whole Number Relationships; Addition and Subtraction***

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|-----|--------------------------------------------------------------|-----------------------------------------------------|
| B.6 | Who Took My Hat?<br>1.2.A, 1.2.B, 1.2.D, 1.2.E, 1.2.D. 1.2.F | Joining, Result Unknown: Separating, Result Unknown |
| B.7 | Place Value Penguins<br>1.1.G                                | Groupings of Tens and Ones                          |
| B.8 | Base-10 Bats<br>1.1.G, 1.2.A, 1.2.B, 1.2.F, 1.5.A, 1.5.B     | Groupings of Tens and Ones; Addition                |
| B.9 | Who's the Closest?<br>1.1.E, 1.1.G, 1.1.I, 1.2.C             | Represent Addition and Subtraction on a Number Line |

***BOOK 4: Geometric Attributes; Concepts of Measurement; Additional Key Content***

- |      |                                                          |                                             |
|------|----------------------------------------------------------|---------------------------------------------|
| B.10 | Fill It In<br>1.3.B, 1.3.C                               | Compose & Decompose Pattern Blocks          |
| B.11 | Try This Angle<br>1.3.A, 1.3.B, 1.3.C                    | Compose & Decompose Shapes, Attributes      |
| B.12 | What Do You Like?<br>1.5.A, 1.5.B                        | Collecting Data                             |
| B.13 | Measuring Me<br>1.4.A, 1.4.B, 1.4.C, 1.4.D, 1.4.E, 1.5.B | Representing Measurements and Discrete Data |



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**Level C (Grade 2)**

***BOOK 1: Developing a Problem Solving Environment***

Chapter A: Fostering Critical Thinking

Chapter B: Developing Problem Solving

Chapter C: Promoting Confidence

***BOOK 2: Place Value and the Base Ten System; Addition and Subtraction***

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|-----|------------------------------------------------------------------|-----------------------------------------------------|
| C.1 | Number Has Its Place<br>2.1.A, 2.1.B, 2.1.C, 2.1.D, 2.1.E, 2.1.F | Place Value                                         |
| C.2 | Roll 'Em<br>2.1.C, 2.1.D                                         | Comparing Numbers, Expanded Notation                |
| C.3 | Digit Game<br>2.1.D, 2.1.F                                       | Ordering Numbers, Expanded notation                 |
| C.4 | Flower Garden<br>2.2.B, 2.4.C                                    | Addition and Subtraction                            |
| C.5 | Nests of Stone<br>2.2.B, 2.2.C, 2.2.G                            | Joining, Change Unknown; Separating, Result Unknown |

***BOOK 3: Addition and Subtraction***

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|------|------------------------------------------------------------|-------------------------------------|
| C.6  | Toy Store<br>2.2.B, 2.2.C, 2.2.D, 2.2.H, 2.2.I             | Addition and Subtraction with Money |
| C.7  | In and Out<br>2.2.F                                        | Number Patterns                     |
| C.8  | Dollar Days<br>2.2.D, 2.2.H, 2.2.I                         | Subtraction with Money              |
| C.9  | Shopping at the School Store<br>2.2.B, 2.2.H, 2.2.C, 2.3.E | Addition and Subtraction with Money |
| C.10 | Sum Fun<br>2.2.C                                           | Composing and Decomposing Numbers   |

***BOOK 4: Measurement; Additional Key Content***

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|------|------------------------------------------------|---------------------------------------------------|
| C.11 | My Foot<br>2.3.A, 2.3.B, 2.3.C                 | Non-standard Measurement                          |
| C.12 | Measuring Salamanders<br>2.3.B, 2.3.C          | Standard Measurement                              |
| C.13 | Frog Jump<br>2.3.B, 2.3.C, 2.4.B               | Measuring Lengths and Transitivity                |
| C.14 | Sea Turtles<br>2.4.C                           | Repeated Addition & Geometry                      |
| C.15 | Tangram Critters<br>2.4.A, 2.4.C, 2.4.D, 2.4.E | Compose & Decompose Shapes, Model Fractions, etc. |
| C.16 | Arctic Animals<br>2.2.B, 2.3.B, 2.3.C          | Estimating and Measuring Lengths                  |



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**Level D (Grade 3)**

**BOOK 1: Developing a Problem Solving Environment**

Chapter A: Fostering Critical Thinking

Chapter B: Developing Problem Solving

Chapter C: Promoting Confidence

**BOOK 2: Addition, Subtraction, and Place Value  
Concepts of Multiplication and Division**

D.1	Bloomin' Flowers 3.1E, 3.2.A	Repeated addition
D.2	Art Class 3.2.B	Division
D.3	The Pelican's Pouch 3.2.F, 3.2.H, 3.5.D	Skip Counting
D.4	Room Change 3.2.B, 3.2.H	Division
D.5	Trip to the Zoo 3.2.A, 3.2.H	Foundation for multiples
D.6	How Does Your Garden Grow? 3.2.A, 3.2.C, 3.2.D, 3.2.F, 3.2.G, 3.2.H, 3.5.A	Multiplication concepts

**BOOK 3: Fraction Concepts; Geometry**

D.7	Brownies 3.3.A	Representing fractions
D.8	"Egg-zactly" 3.3.B, 3.3.C, 3.3.D	Comparing fractions
D.9	What's My Shape? 3.4.A, 3.4.B, 3.4.C	Lines, right angles, quadrilaterals
D.10	Around the Rim 3.3.A, 3.3.C, 3.4.D, 3.4.E	Perimeter

**BOOK 4: Additional Key Content; Addition, Subtraction, and Place Value**

D.11	How Close Can You Get? 3.5.C, 3.5.D	Weight and Capacity
D.12	What's the Weather? 3.5.B, 3.5.E	Tallies, bar graphs, pictographs
D.13	Just Graph It! 3.5.E	Line plots, pictographs
D.14	Cool Numbers 3.1.B, 3.1.D, 3.1.E, 3.5.A	Estimating, adding & subtracting large numbers



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**Level E (Grade 4)**

***BOOK 1: Developing a Problem Solving Environment***

Chapter A: Fostering Critical Thinking

Chapter B: Developing Problem Solving

Chapter C: Promoting Confidence

***BOOK 2: Multi-digit multiplication; Fractions, decimals, and mixed numbers***

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|-----|-------------------------------------------------------|------------------------------------------------|
| E.1 | Carnival Capers<br>4.1.D, 4.1.G, 4.1.I                | Multiplying whole numbers                      |
| E.2 | Places, Everyone!<br>4.1.B, 4.1.C, 4.1.E              | Multiplying with arrays & area                 |
| E.3 | Ship Shape<br>4.2.C                                   | Represent and convert fractions, mixed numbers |
| E.4 | Divvy it Up<br>4.2.A, 4.2.D, 4.2.I                    | Fraction/Decimal equivalents                   |
| E.5 | Comparing This and That<br>4.2.D, 4.2.E, 4.2.H, 4.2.I | Fraction/Decimal equivalents                   |
| E.6 | School Store<br>4.2.A, 4.2.D, 4.2.F, 4.2.I            | Equivalent fractions                           |

***BOOK 3: Concept of Area***

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|------|-------------------------------------------|----------------------------|
| E.7  | Five, Four, Three, Two, One...<br>4.3.A   | Informal transformations   |
| E.8  | Bulletin Board<br>4.3.A                   | Congruence with area       |
| E.9  | Ta-Da! A Formu-la!<br>4.3.B, 4.3.C, 4.3.D | Area of rectangles         |
| E.10 | Playground<br>4.3.C, 4.3.D, 4.3.F         | Area of irregular polygons |

***BOOK 4: Additional Key Content***

- |      |                                              |                               |
|------|----------------------------------------------|-------------------------------|
| E.11 | How Much Does It Hold?<br>4.4.A, 4.4.B       | Measure capacity, Conversions |
| E.12 | Show Time<br>4.4.B, 4.4.C                    | Elapsed time                  |
| E.13 | Carnival Games<br>4.4.E, 4.4.F, 4.4.G, 4.4.H | Probability, Statistics       |
| E.14 | Sliding By<br>4.3.A, 4.4.D                   | Graph using ordered pairs     |



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**Level F (Grade 5)**

***BOOK 1: Developing a Problem Solving Environment***

Chapter A: Fostering Critical Thinking  
Chapter B: Developing Problem Solving  
Chapter C: Promoting Confidence

***BOOK 2: Multi-digit Division; Addition and Subtraction of Fractions and Decimals***

F.1	Baseball 5.1.A, 5.1.D, 5.1.F	Division and Unit Pricing
F.2	Who's Here? 5.1.A, 5.1.D, 5.1.F	Division
F.3	For Profit or Not? 5.1.F, 5.2.H	Cost vs. Earnings
F.4	Pizza Pizza 5.2.A, 5.2.C, 5.2.E, 5.2.H	Represent and add fractions
F.5	School Clothes 5.2.F, 5.2.G, 5.2.H	Add and subtract decimals
F.6	Party Hearty 5.2.E	Add and subtract fractions and mixed numbers

***BOOK 3: Triangles and Quadrilaterals; Numbers, Data/Statistics/Probability***

F.7	Treasure Hunt 5.3.B, 5.3.H	Measure and sketch angles and lines
F.8	Can You Figure This? 5.3.C, 5.3.D, 5.3.E, 5.3.F	Area of Triangles and Trapezoids
F.9	RV Parking 5.3.I	Area of Trapezoids
F.10	The Growth of Children 5.5.C	Construct and interpret line graphs

***BOOK 4: Representations of Algebraic Relationships***

F.11	Lake Oscawana 5.4.A, 5.4.C	Writing a rule or algebraic expression
F.12	Patterns 5.4.A, 5.5.B	Writing a rule for squaring & doubling numbers
F.13	Legs, Legs, Legs 5.4.B, 5.4.C	Functional relationships
F.14	Soccer Snacks 5.4.C	Writing algebraic expressions
F.15	Jog-a-Thon 5.4.C, 5.4.D	Graphing ordered pairs for two sets of data



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**Level G (Grade 6)**

**SECTION 1: Developing a Problem Solving Environment**

Chapter A: Fostering Critical Thinking

Chapter B: Developing Problem Solving

Chapter C: Building Essentials (Vocabulary, Problem Analysis, Team Work)

**SECTION 2: Targeting Washington 2008 Mathematics Standards**

<b>G.1</b>	<b>Decimal Doozies</b> 6.1.B, 6.1.E, 6.1.H, 6.4.B	<i>Modeling &amp; Multiplying Decimals</i>
<b>G.2</b>	<b>Math Club</b> 6.1.B, 6.1.D, 6.1.H, 6.2.A	<i>Modeling &amp; Multiplying Decimals</i>
<b>G.3</b>	<b>Phone Home</b> 6.1.H, 6.2.A, 6.2.F	<i>Algebraic Expressions</i>
<b>G.4</b>	<b>Math Magic</b> 6.1.H, 6.2.A, 6.2.C	<i>Algebraic Expressions</i>
<b>G.5</b>	<b>Fitness</b> 6.2.A, 6.2.B, 6.2.C, 6.2.D, 6.2.F	<i>Graphing Algebraic Expressions</i>
<b>G.6</b>	<b>Bike Trip</b> 6.3.B, 6.3.D	<i>Rate</i>
<b>G.7</b>	<b>Rate This</b> 6.3.A, 6.3.B, 6.3.D	<i>Rate, Ratio &amp; Proportion</i>
<b>G.8</b>	<b>Grab Box</b> 6.3.F, 6.3.G	<i>Probability</i>
<b>G.9</b>	<b>A Shape Divided</b> 6.4.B	<i>Perimeter &amp; Area of Composite Figures</i>
<b>G.10</b>	<b>Boxing In and Out</b> 6.1.H, 6.4.E	<i>Surface Area &amp; Volume of Rectangular Prisms</i>
<b>G.11</b>	<b>Constructing Pyramids</b> 6.4.D, 6.4.F, 6.4.G	<i>Surface Area of Pyramids</i>
<b>G.12</b>	<b>Surface Issues</b> 6.3.E, 6.4.A, 6.4.B, 6.4.C	<i>Radius, Diameter, Circumference, Area of Circles</i>
<b>G.13</b>	<b>Some Ups and Downs</b> 6.1.A, 6.1.B, 6.5.B, 6.5.C	<i>Positive/Negative Integers; Rational Numbers</i>



**Making Sense of Problem Solving:  
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**Level H (Grade 7)**

**SECTION I: Developing a Problem Solving Environment**

Chapter A: Fostering Critical Thinking

Chapter B: Developing Problem Solving

Chapter C: Building Essentials (Vocabulary, Problem Analysis, Team Work)

**SECTION II: Targeting Washington 2008 Mathematics Standards**

<b>H.1</b>	<b>Money Matters</b> 7.1.E, 7.1.F	<i>Writing Equations</i>
<b>H.2</b>	<b>Go Figure!</b> 7.1.F, 7.1.G	<i>Writing Equations &amp; Multiple Representations</i>
<b>H.3</b>	<b>Smart Shopping</b> 7.1.C, 7.1.F, 7.1.G, 7.2.A	<i>Fractions, Decimals, &amp; Percents</i>
<b>H.4</b>	<b>The Stock Market</b> 7.1.A, 7.1.B, 7.1.C, 7.1.D	<i>Compare, Order, Add &amp; Subtract Rational Numbers</i>
<b>H.5</b>	<b>Scale It</b> 7.2.C, 7.2.D, 7.2.I	<i>Scale Drawing on a Coordinate Grid</i>
<b>H.6</b>	<b>Free Throws</b> 7.2.B	<i>Proportions and Percents</i>
<b>H.7</b>	<b>Commission Sales</b> 7.2.B	<i>Commission</i>
<b>H.8</b>	<b>Corresponding Sails</b> 7.2.C, 7.2.E	<i>Ratio &amp; Proportional Relationships</i>
<b>H.9</b>	<b>How Steep is Steep?</b> 7.1.E, 7.2.E, 7.2.F, 7.2.G, 7.5.A	<i>Discovering Slope</i>
<b>H.10</b>	<b>Chores Pay Off</b> 7.2.H	<i>Multiplicative &amp; Additive Increases</i>
<b>H.11</b>	<b>Box It Up!</b> 7.3.C, 7.3.D	<i>Surface Area and Volume</i>
<b>H.12</b>	<b>Picking Up the Garbage</b> 7.3.A, 7.3.B, 7.3.D	<i>Volume of Cylinders, Prisms and Cones</i>
<b>H.13</b>	<b>Roll the Cube</b> 7.4.A, 7.4.B	<i>Sample Space &amp; Predicting Experimental Outcomes</i>
<b>H.14</b>	<b>Making Sense of Data</b> 7.2.B, 7.4.D	<i>Histogram, Circle Graph</i>
<b>H.15</b>	<b>Soccer Game</b> 7.4.C, 7.4.E	<i>Evaluating Use of Measures of Center &amp; Data Displays</i>



**Making Sense of Problem Solving:  
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**Level I (Grade 8)**

**SECTION I: Developing a Problem Solving Environment**

Chapter A: Fostering Critical Thinking

Chapter B: Developing Problem Solving

Chapter C: Building Essentials (Vocabulary, Problem Analysis, Team Work)

**SECTION II: Targeting Washington 2008 Mathematics Standards**

<b>I.1</b>	<b>How Many Have to Show Up?</b> 8.1.A, 8.1.C	<i>Linear Equations</i>
<b>I.2</b>	<b>Meltdown</b> 8.1.C, 8.1.D, 8.1.E, 8.1.F	<i>Linear Functions and Slope</i>
<b>I.3</b>	<b>Faster, Faster</b> 8.1.B, 8.1.C	<i>Linear Inequalities and Graphs</i>
<b>I.4</b>	<b>Which Would You Rather Have?</b> 8.1.C, 8.1.F, 8.1.G	<i>Linear Functions</i>
<b>I.5</b>	<b>What's Your Angle?</b> 8.2.A, 8.2.B, 8.2.C	<i>Angles</i>
<b>I.6</b>	<b>Transforming</b> 8.2.D	<i>Transformations</i>
<b>I.7</b>	<b>Tunnel Vision</b> 8.3.E, 8.2.F, 8.2.G	<i>Square Roots and Pythagorean Theorem</i>
<b>I.8</b>	<b>Text Messages</b> 8.3.A, 8.3.B	<i>Constructing and Analyzing Data Displays</i>
<b>I.9</b>	<b>Predictions</b> 8.3.C	<i>Scatterplots</i>
<b>I.10</b>	<b>Is That So?</b> 8.3.D, 8.3.E	<i>Analyzing Statistical Samples</i>
<b>I.11</b>	<b>An Even Chance</b> 8.3.F, 8.3.G	<i>Probability</i>
<b>I.12</b>	<b>What On Earth?</b> 8.4.A, 8.4.B, 8.4.C	<i>Operations with Numbers in Scientific Notation</i>