

CarolinaTM Curriculum

a division of Carolina Biological Supply Company

Correlation to
**Virginia
Standards
of Learning
2010-2011**

Mathematics Grades K-5

Math Out of the Box[®]

The following pages pertain to Math Out of the Box[®] K-5 modules that have been aligned with the Virginia Standards of Learning for Mathematics, for Kindergarten through Fifth grades. For your reference, we have provided the aligned strands, module titles, and lessons within that module and corresponding page numbers. Each major standard heading is highlighted in black.



Math Out of the Box[®]

Integrated Curriculum Matrix

	Developing Algebraic Thinking	Developing Geometric Logic	Developing Measurement Benchmarks	Developing Number Concepts
K	<i>Rhythm and Design</i>	<i>Towers and Trails</i>	<i>Over and Under</i>	<i>Like and Unlike</i>
1	<i>Together and Apart</i>	<i>Symmetry and Shapes</i>	<i>Up and Down</i>	<i>Families and Facts</i>
2	<i>Collecting and Sorting</i>	<i>Rows and Columns</i>	<i>Large and Small</i>	<i>More and Less</i>
3	<i>Plotting and Growing</i>	<i>Shapes and Paths</i>	<i>Scales and Balances</i>	<i>Ordering and Arranging</i>
4	<i>Signs and Symbols</i>	<i>Corners and Containers</i>	<i>Inside and Outside</i>	<i>Stories and Statements</i>
5	<i>Steps and Distance</i>	<i>Conjectures and Transformations</i>	<i>Tools and Time</i>	<i>Values and Variables</i>

Based on National Council of Teachers of Mathematics (NCTM) Standards

Math Out of the Box[®] is a K–5, inquiry-based math curriculum developed by Clemson University's College of Engineering and Science. Based on the NCTM Principles and Standards for School Mathematics, **Math Out of the Box[®]** is filled with engaging, hands-on activities.



**Virginia Standards of Learning 2010-2011 - Mathematics
Kindergarten - Adopted 2009**

**Number and Number Sense
Focus: Whole Number Concepts**

Standards	Titles That Meet
<p>K.1 The student, given two sets, each containing 10 or fewer concrete objects, will identify and describe one set as having more, fewer, or the same number of members as the other set, using the concept of one-to-one correspondence.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Like and Unlike Module A TG: Lesson 02 (pp 11-17) TG: Lesson 03 (pp 19-25) TG: Lesson 04 (pp 27-34) TG: Lesson 05 (pp 35-42) TG: Lesson 06 (pp 43-49) TG: Lesson 07 (pp 51-58) TG: Lesson 08 (pp 59-66) TG: Lesson 09 (pp 67-71)</p>
<p>K.2 The student, given a set containing 15 or fewer concrete objects, will</p>	
<p>K.2.a) tell how many are in the set by counting the number of objects orally;</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Like and Unlike Module A TG: Lesson 02 (pp 11-17) TG: Lesson 03 (pp 19-25) TG: Lesson 04 (pp 27-34) TG: Lesson 05 (pp 35-42) TG: Lesson 06 (pp 43-49) TG: Lesson 07 (pp 51-58) TG: Lesson 08 (pp 59-66) TG: Lesson 09 (pp 67-71)</p>
<p>K.2.b) write the numeral to tell how many are in the set; and</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Like and Unlike Module A TG: Lesson 04 (pp 27-34) TG: Lesson 05 (pp 35-42) TG: Lesson 06 (pp 43-49) TG: Lesson 07 (pp 51-58) TG: Lesson 08 (pp 59-66) TG: Lesson 09 (pp 67-71)</p> <p>Developing Number Concepts: Like and Unlike Module B TG: Lesson 02 (pp 15-20) TG: Lesson 03 (pp 21-26)</p>
<p>K.2.c) select the corresponding numeral from a given set of numerals.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Like and Unlike Module A TG: Lesson 02 (pp 11-17) TG: Lesson 03 (pp 19-25) TG: Lesson 04 (pp 27-34) TG: Lesson 05 (pp 35-42)</p>

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TG: Lesson 06 (pp 43-49)
TG: Lesson 07 (pp 51-58)
TG: Lesson 08 (pp 59-66)
TG: Lesson 09 (pp 67-71)

K.3 The student, given an ordered set of ten objects and/or pictures, will indicate the ordinal position of each object, first through tenth, and the ordered position of each object.

Math Out of the Box
Developing Number Concepts
Like and Unlike Module B
TG: Lesson 04 (pp 27-34)
TG: Lesson 05 (pp 35-41)

K.4 The student will

K.4.a) count forward to 100 and backward from 10;

Math Out of the Box
Developing Number Concepts:
Like and Unlike Module A
TG: Lesson 16 (pp 139-148)

Developing Number Concepts:
Like and Unlike Module B
TG: Lesson 01 (pp 5-14)
TG: Lesson 02 (pp 15-21)
TG: Lesson 03 (pp 21-26)
TG: Lesson 06 (pp 43-49)
TG: Lesson 07 (pp 49-56)
TG: Lesson 09 (pp 75-82)
TG: Lesson 11 (pp 91-100)

K.4.b) identify one more than a number and one less than a number;

Math Out of the Box
Developing Number Concepts:
Like and Unlike Module A
TG: Lesson 16 (pp 139-148)
TG: Lesson 17 (pp 149-158)
TG: Lesson 18 (pp 159-166)
TG: Lesson 19 (pp 167-172)
TG: Lesson 20 (pp 173-179)

K.4.c) count by fives and tens to 100.

Math Out of the Box
Developing Number Concepts:
Like and Unlike Module B
TG: Lesson 06 (pp 43-49)
TG: Lesson 09 (pp 75-82)
TG: Lesson 11 (pp 91-100)
TG: Post Assessment L01-08 (pp 65-71)
TG: Post Assessment L09-12 (pp 109-111)

K.5 The student will identify the parts of a set and/or region that represent fractions for halves and fourths.

Math Out of the Box
Developing Number Concepts:
Like and Unlike Module B
TG: Lesson 08 (pp 57-64)

**Virginia Standards of Learning 2010-2011 - Mathematics
Kindergarten - Adopted 2009**

Computation and Estimation

Focus: Whole Number Operations

Standards	Titles That Meet
K.6 The student will model adding and subtracting whole numbers, using up to 10 concrete objects.	<u>Math Out of the Box</u> Developing Number Concepts: Like and Unlike Module A TG: Lesson 10 (pp 81-88) TG: Lesson 11 (pp 89-96) TG: Lesson 12 (pp 97-105) TG: Lesson 13 (pp 107-114) TG: Lesson 14 (pp 115-122) TG: Lesson 15 (pp 123-129) TG: Lesson 16 (pp 139-148) TG: Lesson 17 (pp 149-157)

Measurement

Focus: Instruments and Attributes

Standards	Titles That Meet
K.7 The student will recognize a penny, nickel, dime, and quarter and will determine the value of a collection of pennies and/or nickels whose total value is 10 cents or less.	<u>Math Out of the Box</u> Developing Measurement Benchmarks: Over and Under TG: Lesson 10 (pp 65-72) TG: Lesson 11 (pp 73-80)
K.8 The student will identify the instruments used to measure length (ruler), weight (scale), time (clock: digital and analog; calendar: day, month, and season), and temperature (thermometer).	<u>Math Out of the Box</u> Developing Measurement Benchmarks: Over and Under TG: Lesson 02 (pp 13-18) TG: Lesson 03 (pp 19-24) TG: Lesson 12 (pp 81-88) TG: Lesson 13 (pp 89-96) TG: Lesson 14 (pp 97-102) TG: Lesson 15 (pp 103-108) TG: Lesson 16 (pp 109-114) TG: Lesson 17 (pp 119-126)
K.9 The student will tell time to the hour, using analog and digital clocks.	<u>Math Out of the Box</u> Developing Measurement Benchmarks: Over and Under TG: Lesson 12 (pp 81-88) TG: Lesson 13 (pp 89-96)
K.10 The student will compare two objects or events, using direct comparisons or nonstandard units of measure, according to one or more of the following attributes: length (shorter, longer), height (taller, shorter), weight (heavier, lighter), temperature (hotter, colder). Examples of nonstandard units include foot length, hand span, new pencil, paper clip, and	<u>Math Out of the Box</u> Developing Measurement Benchmarks: Over and Under TG: Lesson 01 (pp 7-12) TG: Lesson 02 (pp 13-18) TG: Lesson 03 (pp 19-24) TG: Lesson 04 (pp 25-30) TG: Lesson 05 (pp 31-36) TG: Lesson 16 (pp 109-114)

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TG: Lesson 17 (pp 119-125)

TG: Lesson 18 (pp 127-132)

Geometry

Focus: Plane Figures

Standards

Titles That Meet

K.11 The student will

K.11.a) identify, describe, and trace plane geometric figures (circle, triangle, square, and rectangle);

Math Out of the Box
Developing Algebraic Thinking:
Rhythm and Design
TG: Lesson 01 (pp 5-12)

Developing Geometric Logic:
Towers and Trails
TG: Lesson 07 (pp 53-59)
TG: Lesson 08 (pp 61-67)
TG: Lesson 09 (pp 69-75)
TG: Lesson 10 (pp 77-81)
TG: Lesson 11 (pp 83-87)
TG: Lesson 12 (pp 89-93)
TG: Lesson 16 (pp 119-124)

K.11.b) compare the size (larger, smaller) and shape of plane geometric figures (circle, triangle, square, and rectangle).

Math Out of the Box
Developing Algebraic Thinking:
Rhythm and Design
TG: Lesson 01 (pp 5-12)

Developing Geometric Logic:
Towers and Trails
TG: Lesson 07 (pp 53-59)
TG: Lesson 08 (pp 61-67)
TG: Lesson 10 (pp 77-81)
TG: Lesson 11 (pp 83-87)
TG: Lesson 12 (pp 89-93)
TG: Lesson 16 (pp 119-124)

K.12 The student will describe the location of one object relative to another (above, below, next to) and identify representations of plane geometric figures (circle, triangle, square, and rectangle) regardless of their positions and orientations in space.

Math Out of the Box
Developing Algebraic Thinking:
Rhythm and Design
TG: Lesson 01 (pp 5-12)

Developing Geometric Logic:
Towers and Trails
TG: Lesson 07 (pp 53-59)
TG: Lesson 08 (pp 61-67)
TG: Lesson 10 (pp 77-81)
TG: Lesson 11 (pp 83-87)
TG: Lesson 12 (pp 89-93)
TG: Lesson 19 (pp 141-145)
TG: Lesson 20 (pp 147-151)

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**Probability and Statistics
Focus: Data Collection and Display**

Standards	Titles That Meet
K.13 The student will gather data by counting and tallying.	Math Out of the Box Developing Algebraic Thinking: Rhythm and Design TG: Lesson 12 (pp 87-92) TG: Lesson 13 (pp 93-98) TG: Lesson 14 (pp 103-108) TG: Lesson 15 (pp 109-114) TG: Lesson 16 (pp 115-120) TG: Lesson 17 (pp 127-132) TG: Lesson 18 (pp 133-138) TG: Lesson 19 (pp 139-144)
K.14 The student will display gathered data in object graphs, picture graphs, and tables, and will answer questions related to the data.	Math Out of the Box Developing Algebraic Thinking: Rhythm and Design TG: Lesson 14 (pp 103-108) TG: Lesson 15 (pp 109-113) TG: Lesson 16 (pp 115-120) TG: Lesson 17 (pp 127-131) TG: Lesson 18 (pp 133-137) TG: Lesson 19 (pp 139-144) TG: Lesson 20 (pp 145-149)

**Patterns, Functions, and Algebra
Focus: Attributes and Patterning**

Standards	Titles That Meet
K.15 The student will sort and classify objects according to attributes.	Math Out of the Box Developing Algebraic Thinking: Rhythm and Design TG: Lesson 11 (pp 81-86) TG: Lesson 12 (pp 87-92) TG: Lesson 13 (pp 93-98) TG: Lesson 14 (pp 103-108) TG: Lesson 15 (pp 109-114) TG: Lesson 16 (pp 115-120) TG: Lesson 17 (pp 127-132) TG: Lesson 18 (pp 133-138)
K.16 The student will identify, describe, and extend repeating patterns.	Math Out of the Box Developing Algebraic Thinking: Rhythm and Design TG: Lesson 01 (pp 5-12) TG: Lesson 02 (pp 13-18) TG: Lesson 03 (pp 19-24) TG: Lesson 04 (pp 29-36) TG: Lesson 05 (pp 37-44) TG: Lesson 06 (pp 45-50) TG: Lesson 07 (pp 55-60) TG: Lesson 08 (pp 61-66)

**Virginia Standards of Learning 2010-2011 - Mathematics
Grade 1 - Adopted 2009**

**Number and Number Sense
Focus: Place Value and Fraction Concepts**

Standards	Titles That Meet
<p>1.1 The student will</p> <p>1.1.a) count from 0 to 100 and write the corresponding numerals;</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Families and Facts Module A TG: Lesson 01 (pp 5-14) TG: Lesson 02 (pp 15-24) TG: Lesson 04 (pp 33-40) TG: Lesson 18 (pp 173-182) TG: Lesson 19 (pp 183-190) TG: Lesson 20 (pp 191-200) TG: Lesson 21 (pp 201-208)</p> <p>Developing Number Concepts: Families and Facts Module B TG: Lesson 05 (pp 51-62)</p>
<p>1.1.b) group a collection of up to 100 objects into tens and ones and write the corresponding numeral to develop an understanding of place value.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Families and Facts Module B TG: Lesson 04 (pp 41-50) TG: Lesson 05 (pp 51-62) TG: Lesson 06 (pp 63-74) TG: Lesson 07 (pp 75-81) TG: Post Assessment Lessons 04-07 (pp 82-83)</p>
<p>1.2 The student will count forward by ones, twos, fives, and tens to 100 and backward by ones from 30.</p>	<p><u>Math Out of the Box</u> Developing Algebraic Thinking: Together and Apart TG: Lesson 07 (pp 61-70) TG: Lesson 08 (pp 71-78) TG: Lesson 09 (pp 79-88)</p> <p>Developing Measurement Benchmarks: Up and Down TG: Lesson 09 (pp 65-71) TG: Lesson 10 (pp 73-80)</p> <p>Developing Number Concepts: Families and Facts Module A TG: Lesson 18 (pp 173-182) TG: Lesson 19 (pp 183-190) TG: Lesson 20 (pp 191-200)</p>
<p>1.3 The student will identify the parts of a set and/or region that represent fractions for halves, thirds, and fourths and write the fractions.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Families and Facts Module B TG: Lesson 15 (pp 151-158)</p>

**Virginia Standards of Learning 2010-2011 - Mathematics
Grade 1 - Adopted 2009**

**Computation and Estimation
Focus: Whole Number Operations**

Standards	Titles That Meet
<p>1.4 The student, given a familiar problem situation involving magnitude, will</p> <p>1.4.a) select a reasonable order of magnitude from three given quantities: a one-digit numeral, a two-digit numeral, and a three-digit numeral (e.g., 5, 50, 500); and</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Families and Facts Module A TG: Lesson 18 (pp 173-181) TG: Lesson 19 (pp 183-189) TG: Lesson 20 (pp 191-199) TG: Lesson 22 (pp 191-199)</p> <p>Developing Number Concepts: Families and Facts Module B TG: Lesson 07 (pp 75-81) TG: Lesson 08 (pp 89-95)</p>
<p>1.4.b) explain the reasonableness of the choice.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Families and Facts Module A TG: Lesson 18 (pp 173-181) TG: Lesson 19 (pp 183-189) TG: Lesson 20 (pp 191-199) TG: Lesson 22 (pp 209-217)</p> <p>Developing Number Concepts: Families and Facts Module B TG: Lesson 07 (pp 75-81) TG: Lesson 08 (pp 89-95)</p>
<p>1.5 The student will recall basic addition facts with sums to 18 or less and the corresponding subtraction facts.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Families and Facts Module A TG: Lesson 05 (pp 49-58) TG: Lesson 06 (pp 59-68) TG: Lesson 07 (pp 69-76) TG: Lesson 08 (pp 77-86) TG: Lesson 09 (pp 87-96) TG: Lesson 14 (pp 135-142) TG: Lesson 16 (pp 153-160) TG: Lesson 17 (pp 161-166)</p>
<p>1.6 The student will create and solve one-step story and picture problems using basic addition facts with sums to 18 or less and the corresponding subtraction facts.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Families and Facts Module A TG: Lesson 05 (pp 49-58) TG: Lesson 06 (pp 59-68) TG: Lesson 07 (pp 69-76) TG: Lesson 08 (pp 77-86) TG: Lesson 09 (pp 87-96) TG: Lesson 14 (pp 135-142)</p>

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TG: Lesson 16 (pp 153-160)
TG: Lesson 17 (pp 161-166)

Measurement

Focus: Time and Nonstandard Measurement

Standards	Titles That Meet
<p>1.7 The student will</p> <p>1.7.a) identify the number of pennies equivalent to a nickel, a dime, and a quarter;</p> <p>1.7.b) determine the value of a collection of pennies, nickels, and dimes whose total value is 100 cents or less.</p>	<p><u>Math Out of the Box</u> Developing Measurement Benchmarks: Up and Down TG: Lesson 09 (pp 65-71) TG: Lesson 10 (pp 73-80) TG: Lesson 11 (pp 81-88)</p> <p><u>Math Out of the Box</u> Developing Measurement Benchmarks: Up and Down TG: Lesson 09 (pp 65-72) TG: Lesson 10 (pp 73-80) TG: Lesson 11 (pp 81-88) TG: Lesson 12 (pp 89-94) TG: Post Assessment Lessons 09-12 (pp 62-63)</p>
<p>1.8 The student will tell time to the half-hour, using analog and digital clocks.</p>	<p><u>Math Out of the Box</u> Developing Measurement Benchmarks: Up and Down TG: Lesson 15 (pp 121-126) TG: Lesson 16 (pp 127-132)</p>
<p>1.9 The student will use nonstandard units to measure length, weight/mass, and volume.</p>	<p><u>Math Out of the Box</u> Developing Measurement Benchmarks: Up and Down TG: Lesson 01 (pp 7-14) TG: Lesson 02 (pp 15-20) TG: Lesson 18 (pp 145-150) TG: Lesson 19 (pp 151-156)</p> <p>Developing Number Concepts: Families and Facts Module B TG: Lesson 03 (pp 25-33)</p>
<p>1.10 The student will compare, using the concepts of more, less, and equivalent,</p> <p>1.10.a) the volumes of two given containers;</p>	<p><u>Math Out of the Box</u> Developing Measurement Benchmarks: Up and Down TG: Lesson 19 (pp 151-156)</p>

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1.10.b) the weight/mass of two objects, using a balance scale.

Math Out of the Box
**Developing Measurement Benchmarks:
 Up and Down**
 TG: Lesson 18 (pp 145-150)

1.11 The student will use calendar language appropriately (e.g., names of the months, today, yesterday, next week, last week).

Math Out of the Box
**Developing Measurement Benchmarks:
 Up and Down**
 TG: Lesson 13 (pp 103-110)
 TG: Lesson 14 (pp 111-120)
 TG: Post Assessment Lessons 13-17 (pp 99-101)
 TG: Unit Pre Assessment (pp xxii-xxix)

Geometry

Focus: Characteristics of Plane Figures

Standards	Titles That Meet
1.12 The student will identify and trace, describe, and sort plane geometric figures (triangle, square, rectangle, and circle) according to number of sides, vertices, and right angles.	<u>Math Out of the Box</u> Developing Geometric Logic: Symmetry and Shapes TG: Lesson 07 (pp 53-60) TG: Lesson 08 (pp 61-64) TG: Lesson 09 (pp 65-70) TG: Lesson 10 (pp 71-76) TG: Lesson 11 (pp 77-81) TG: Lesson 12 (pp 83-87) TG: Lesson 16 (pp 111-116)
1.13 The student will construct, model, and describe objects in the environment as geometric shapes (triangle, rectangle, square, and circle) and explain the reasonableness of each choice.	<u>Math Out of the Box</u> Developing Geometric Logic: Symmetry and Shapes TG: Lesson 01 (pp 7-15) TG: Lesson 02 (pp 17-22) TG: Lesson 03 (pp 23-28) TG: Lesson 04 (pp 29-34) TG: Lesson 05 (pp 35-40) TG: Lesson 06 (pp 41-45) TG: Lesson 20 (pp 141-144)

Probability and Statistics

Focus: Data Collection and Interpretation

Standards	Titles That Meet
1.14 The student will investigate, identify, and describe various forms of data collection (e.g., recording daily temperature, lunch count, attendance, favorite ice cream), using tables, picture graphs, and object graphs.	<u>Math Out of the Box</u> Developing Algebraic Thinking: Together and Apart TG: Lesson 14 (pp 127-132) TG: Lesson 15 (pp 133-140) TG: Lesson 16 (pp 141-146) TG: Lesson 17 (pp 153-158) TG: Lesson 18 (pp 159-164) TG: Lesson 19 (pp 165-170)

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**Developing Number Concepts:
Families and Facts Module B
TG: Lesson 19 (pp 181-186)
TG: Lesson 20 (pp 187-191)**

1.15 The student will interpret information displayed in a picture or object graph, using the vocabulary more, less, fewer, greater than, less than, and equal to.

**Math Out of the Box
Developing Algebraic Thinking:
Together and Apart
TG: Lesson 15 (pp 133-140)
TG: Lesson 16 (pp 141-146)
TG: Lesson 17 (pp 153-158)
TG: Lesson 18 (pp 159-164)
TG: Lesson 19 (pp 165-170)
TG: Lesson 20 (pp 170-176)**

**Developing Geometric Logic:
Symmetry and Shapes
TG: Lesson 06 (pp 41-45)**

**Patterns, Functions, and Algebra
Focus: Patterning and Equivalence**

Standards

Titles That Meet

1.16 The student will sort and classify concrete objects according to one or more attributes, including color, size, shape, and thickness.

**Math Out of the Box
Developing Algebraic Thinking:
Together and Apart
TG: Lesson 11 (pp 99-106)
TG: Lesson 12 (pp 107-114)
TG: Lesson 13 (pp 115-122)
TG: Lesson 14 (pp 127-132)
TG: Lesson 15 (pp 133-140)
TG: Lesson 16 (pp 141-146)**

**Developing Geometric Logic:
Symmetry and Shapes
TG: Lesson 10 (pp 71-76)
TG: Lesson 12 (pp 83-87)**

1.17 The student will recognize, describe, extend, and create a wide variety of growing and repeating patterns.

**Math Out of the Box
Developing Algebraic Thinking:
Together and Apart
TG: Lesson 01 (pp 5-12)
TG: Lesson 02 (pp 13-20)
TG: Lesson 03 (pp 21-26)
TG: Lesson 04 (pp 31-40)
TG: Lesson 05 (pp 41-48)
TG: Lesson 06 (pp 49-56)
TG: Lesson 07 (pp 61-70)
TG: Lesson 08 (pp 71-78)**

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1.18 The student will demonstrate an understanding of equality through the use of the equal sign.

Math Out of the Box
Developing Number Concepts:
Families and Facts Module A
TG: Lesson 05 (pp 49-57)
TG: Lesson 06 (pp 59-67)
TG: Lesson 07 (pp 69-76)
TG: Lesson 08 (pp 77-85)
TG: Lesson 09 (pp 87-96)
TG: Lesson 10 (pp 97-104)
TG: Lesson 11 (pp 105-110)
TG: Lesson 12 (pp 111-118)

**Virginia Standards of Learning 2010-2011 - Mathematics
Grade 2 - Adopted 2009**

Number and Number Sense

Focus: Place Value, Number Patterns, and Fraction Concepts

Standards

Titles That Meet

2.1 The student will

2.1.a) read, write, and identify the place value of each digit in a three-digit numeral, using numeration models;

Math Out of the Box
Developing Number Concepts:
More and Less Module A
TG: Lesson 14 (pp 145-156)
TG: Lesson 16 (pp 167-173)

2.1.b) round two-digit numbers to the nearest ten;

Math Out of the Box
Developing Number Concepts:
More and Less Module B
TG: Lesson 01 (pp 5-14)
TG: Lesson 02 (pp 15-21)
TG: Lesson 03 (pp 23-31)
TG: Post Assessment Lessons 01-03 (p 32)

2.1.c) compare two whole numbers between 0 and 999, using symbols (>, <, or =) and words (greater than, less than, or equal to).

Math Out of the Box
Developing Number Concepts:
More and Less Module A
TG: Lesson 13 (pp 135-144)
TG: Lesson 15 (pp 157-165)
TG: Post Assessment Lessons 11-16 (pp 174-177)

2.2 The student will

2.2.a) identify the ordinal positions first through twentieth, using an ordered set of objects;

Math Out of the Box
Developing Algebraic Thinking:
Collecting and Sorting
TG: Lesson 05 (pp 37-44)

Developing Measurement Benchmarks:
Large and Small
TG: Lesson 13 (pp 109-116)

2.2.b) write the ordinal numbers.

Math Out of the Box
Developing Algebraic Thinking:
Collecting and Sorting
TG: Lesson 05 (pp 37-44)

Developing Measurement Benchmarks:
Large and Small
TG: Lesson 13 (pp 109-116)

**Virginia Standards of Learning 2010-2011 - Mathematics
Grade 2 - Adopted 2009**

2.3 The student will

2.3.a) identify the parts of a set and/or region that represent fractions for halves, thirds, fourths, sixths, eighths, and tenths;

Math Out of the Box
Developing Number Concepts:
More and Less Module B
TG: Lesson 17 (pp 143-149)
TG: Post Assessment Lessons 11-17 (p 150)

2.3.b) write the fractions;

Math Out of the Box
Developing Number Concepts:
More and Less Module B
TG: Lesson 17 (pp 143-149)
TG: Post Assessment Lessons 11-17 (p 150)

2.3.c) compare the unit fractions for halves, thirds, fourths, sixths, eighths, and tenths.

Math Out of the Box
Developing Number Concepts:
More and Less Module B
TG: Lesson 17 (pp 143-149)

2.4 The student will

2.4.a) count forward by twos, fives, and tens to 100, starting at various multiples of 2, 5, or 10;

Math Out of the Box
Developing Algebraic Thinking:
Collecting and Sorting
TG: Lesson 06 (pp 45-52)
TG: Lesson 08 (pp 63-70)

Developing Measurement Benchmarks:
Large and Small
TG: Lesson 08 (pp 63-72)
TG: Lesson 10 (pp 81-86)
TG: Lesson 11 (pp 87-94)

Developing Number Concepts:
More and Less Module A
TG: Lesson 11 (pp 115-124)
TG: Lesson 17 (pp 183-191)

Developing Number Concepts:
More and Less Module B
TG: Lesson 05 (pp 45-50)

2.4.b) count backward by tens from 100; and

Math Out of the Box
Developing Number Concepts:
More and Less Module A
TG: Lesson 20 (pp 213-220)
(counting backwards by ones from 100)

2.4.c) recognize even and odd numbers.

Math Out of the Box
Developing Number Concepts:
More and Less Module A
TG: Lesson 02 (pp 13-19)
TG: Lesson 03 (pp 21-30)

**Virginia Standards of Learning 2010-2011 - Mathematics
Grade 2 - Adopted 2009**

Computation and Estimation

Focus: Number Relationships and Operations

Standards	Titles That Meet
<p>2.5 The student will recall addition facts with sums to 20 or less and the corresponding subtraction facts.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: More and Less Module A TG: Lesson 01 (pp 5-12) TG: Lesson 02 (pp 13-19) TG: Lesson 03 (pp 21-30) TG: Lesson 04 (pp 31-40) TG: Lesson 05 (pp 41-51) TG: Lesson 06 (pp 59-67) TG: Lesson 07 (pp 69-78) TG: Lesson 08 (pp 79-87)</p>
<p>2.6 The student, given two whole numbers whose sum is 99 or less, will</p> <p>2.6.a) estimate the sum;</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: More and Less Module B TG: Lesson 01 (pp 5-14)) TG: Lesson 02 (pp 15-21) TG: Lesson 03 (pp 23-31) TG: Lesson 04 (pp 37-44)</p>
<p>2.6.b) find the sum, using various methods of calculation.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: More and Less Module A TG: Lesson 01 (pp 5-12) TG: Lesson 02 (pp 13-19) TG: Lesson 03 (pp 21-30) TG: Lesson 04 (pp 31-40) TG: Lesson 05 (pp 41-51) TG: Lesson 17 (pp 183-191) TG: Lesson 18 (pp 193-201) TG: Lesson 19 (pp 203-211)</p>
<p>2.7 The student, given two whole numbers, each of which is 99 or less, will</p> <p>2.7.a) estimate the difference;</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: More and Less Module A TG: Lesson 06 (pp 59-67) TG: Lesson 07 (pp 69-78) TG: Lesson 08 (pp 79-87)</p> <p>Developing Number Concepts: More and Less Module B TG: Lesson 08 (pp 69-77) TG: Lesson 09 (pp 79-88) TG: Lesson 10 (pp 89-93)</p>

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2.7.b) find the difference, using various methods of calculation.

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Developing Number Concepts:
More and Less Module A
 TG: Lesson 06 (pp 59-67)
 TG: Lesson 07 (pp 69-78)
 TG: Lesson 08 (pp 79-87)
 TG: Lesson 09 (pp 89-96)
 TG: Lesson 10 (pp 97-105)
 TG: Lesson 20 (pp 213-220)
 TG: Lesson 21 (pp 221-229)
 TG: Lesson 22 (pp 231-236)

2.8 The student will create and solve one- and two-step addition and subtraction problems, using data from simple tables, picture graphs, and bar graphs.

Math Out of the Box
Developing Algebraic Thinking:
Collecting and Sorting
 TG: Lesson 14 (pp 129-134)
 TG: Lesson 17 (pp 159-165)
 TG: Lesson 18 (pp 167-174)

Developing Number Concepts:
More and Less Module A
 TG: Lesson 01 (pp 5-12)
 TG: Lesson 02 (pp 13-19)
 TG: Lesson 03 (pp 21-30)
 TG: Lesson 08 (pp 79-87)
 TG: Lesson 10 (pp 97-105)

2.9 The student will recognize and describe the related facts that represent and describe the inverse relationship between addition and subtraction.

Math Out of the Box
Developing Number Concepts:
More and Less Module A
 TG: Lesson 06 (pp 59-67)
 TG: Lesson 07 (pp 69-78)
 TG: Lesson 08 (pp 79-87)
 TG: Lesson 09 (pp 89-96)
 TG: Lesson 10 (pp 97-105)

Measurement

Focus: Money, Linear Measurement, Weight/Mass, and Volume

Standards

Titles That Meet

2.10 The student will

2.10.a) count and compare a collection of pennies, nickels, dimes, and quarters whose total value is \$2.00 or less; and

Math Out of the Box
Developing Measurement Benchmarks:
Large and Small
 TG: Lesson 08 (pp 63-72)
 TG: Lesson 09 (pp 73-80)
 TG: Lesson 10 (pp 81-86)
 TG: Lesson 11 (pp 87-94)
 TG: Post Assessment Lessons 08-11 (pp 60-61)
 TG: Unit Pre Assessment (pp xxiii-xxviii)

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2.10.b) correctly use the cent symbol, dollar symbol (\$), and decimal point (.).

Math Out of the Box
Developing Measurement Benchmarks:
Large and Small
TG: Lesson 08 (pp 63-72)
TG: Lesson 09 (pp 73-80)
TG: Lesson 10 (pp 81-86)
TG: Lesson 11 (pp 87-94)

2.11 The student will estimate and measure

2.11.a) length to the nearest centimeter and inch;

Math Out of the Box
Developing Measurement Benchmarks:
Large and Small
TG: Lesson 02 (pp 15-20)
TG: Lesson 03 (pp 21-28)
TG: Lesson 04 (pp 29-36)
TG: Lesson 05 (p 42)
TG: Lesson 06 (pp 43-48)
TG: Post Assessment Lessons 01-07 (p 5)
TG: Unit Pre Assessment (pp xxiii-xxviii)

2.11.c) liquid volume in cups, pints, quarts, gallons, and liters.

Math Out of the Box
Developing Measurement Benchmarks:
Large and Small
TG: Lesson 17 (pp 147-154)

2.12 The student will tell and write time to the nearest five minutes, using analog and digital clocks.

Math Out of the Box
Developing Measurement Benchmarks:
Large and Small
TG: Lesson 14 (pp 117-123)
TG: Lesson 15 (pp 125-134)

2.13 The student will

2.13.a) determine past and future days of the week;

Math Out of the Box
Developing Measurement Benchmarks:
Large and Small
TG: Lesson 13 (pp 109-116)
TG: Post Assessment Lessons 12-15 (pp 98-99)
TG: Unit Pre Assessment (pp xxiii-xxviii)

2.13.b) identify specific days and dates on a given calendar.

Math Out of the Box
Developing Measurement Benchmarks:
Large and Small
TG: Lesson 13 (pp 109-116)
TG: Post Assessment Lessons 12-15 (pp 98-99)
TG: Unit Pre Assessment (pp xxiii-xxviii)

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2.14 The student will read the temperature on a Celsius and/or Fahrenheit thermometer to the nearest 10 degrees.

Math Out of the Box
Developing Measurement Benchmarks:
Large and Small
 TG: Lesson 12 (pp 101-108)
 TG: Post Assessment Lessons 12-15 (pp 98-99)
 TG: Unit Pre Assessment (pp xxiii-xxviii)

Geometry

Focus: Symmetry and Plane and Solid Figures

Standards

Titles That Meet

2.15 The student will

2.15.a) draw a line of symmetry in a figure;

Math Out of the Box
Developing Geometric Logic:
Rows and Columns
 TG: Lesson 10 (pp 83-88)
 TG: Lesson 11 (pp 89-94)
 TG: Post Assessment Lessons 07-12 (pp 59-64)
 TG: Unit Pre Assessment (pp xxiii-xxix)

2.15.b) identify and create figures with at least one line of symmetry.

Math Out of the Box
Developing Geometric Logic:
Rows and Columns
 TG: Lesson 10 (pp 83-88)
 TG: Lesson 11 (pp 89-94)

2.16 The student will identify, describe, compare, and contrast plane and solid geometric figures (circle/sphere, square/cube, and rectangle/rectangular prism).

Math Out of the Box
Developing Geometric Logic:
Rows and Columns
 TG: Lesson 01 (pp 7-15)
 TG: Lesson 02 (pp 17-23)
 TG: Lesson 03 (pp 25-31)
 TG: Lesson 04 (pp 33-38)
 TG: Lesson 05 (pp 39-46)
 TG: Lesson 12 (pp 95-100)

Probability and Statistics

Focus: Applications of Data

Standards

Titles That Meet

2.17 The student will use data from experiments to construct picture graphs, pictographs, and bar graphs.

Math Out of the Box
Developing Algebraic Thinking:
Collecting and Sorting
 TG: Lesson 13 (pp 117-123)
 TG: Lesson 14 (pp 129-134)
 TG: Lesson 15 (pp 135-140)
 TG: Lesson 16 (pp 141-152)
 TG: Lesson 17 (pp 159-166)
 TG: Lesson 18 (pp 167-174)
 TG: Lesson 19 (pp 175-182)
 TG: Lesson 20 (pp 183-188)

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2.18 The student will use data from experiments to predict outcomes when the experiment is repeated.

Math Out of the Box
Developing Number Concepts:
More and Less Module B
 TG: Lesson 18 (pp 155-159)
 TG: Lesson 19 (pp 161-165)
 TG: Lesson 20 (pp 167-172)
 TG: Post Assessment Lessons 18-20 (p 173)

2.19 The student will analyze data displayed in picture graphs, pictographs, and bar graphs.

Math Out of the Box
Developing Algebraic Thinking:
Collecting and Sorting
 TG: Lesson 11 (pp 99-108)
 TG: Lesson 14 (pp 129-134)
 TG: Lesson 15 (pp 135-140)
 TG: Lesson 16 (pp 141-152)
 TG: Lesson 17 (pp 159-166)
 TG: Lesson 18 (pp 167-174)
 TG: Lesson 19 (pp 175-182)
 TG: Lesson 20 (pp 183-188)

Patterns, Functions, and Algebra
 Focus: Patterning and Numerical Sentences

Standards	Titles That Meet
<p>2.20 The student will identify, create, and extend a wide variety of patterns.</p>	<p><u>Math Out of the Box</u> Developing Algebraic Thinking: Collecting and Sorting TG: Lesson 02 (pp 11-16) TG: Lesson 03 (pp 17-24) TG: Lesson 04 (pp 25-32) TG: Lesson 05 (pp 37-44) TG: Lesson 06 (pp 45-52) TG: Lesson 07 (pp 53-56) TG: Lesson 08 (pp 63-70) TG: Lesson 09 (pp 71-80)</p>
<p>2.21 The student will solve problems by completing numerical sentences involving the basic facts for addition and subtraction. The student will create story problems, using the numerical sentences.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: More and Less Module A TG: Lesson 01 (pp 5-12) TG: Lesson 05 (pp 41-51) TG: Lesson 06 (pp 59-67) TG: Lesson 08 (pp 79-87) TG: Lesson 10 (pp 97-105)</p> <p>Developing Number Concepts: More and Less Module B TG: Lesson 04 (pp 37-44) TG: Lesson 08 (pp 69-77) TG: Lesson 10 (pp 89-93)</p>

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2.22 The student will demonstrate an understanding of equality by recognizing that the symbol = in an equation indicates equivalent quantities and the symbol not equal to indicates that quantities are not equivalent.

Math Out of the Box

**Developing Measurement Benchmarks:
Large and Small**

TG: Lesson 16 (pp 141-146)

TG: Lesson 17 (pp 147-154)

**Developing Number Concepts:
More and Less Module A**

TG: Lesson 13 (pp 135-144)

TG: Lesson 15 (pp 157-165)

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**Number and Number Sense
Focus: Place Value and Fractions**

Standards	Titles That Meet
3.1 The student will	
3.1.a) read and write six-digit numerals and identify the place value and value of each digit;	<u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module A TG: Lesson 10 (pp 101-108) TG: Lesson 11 (pp 109-118) TG: Lesson 12 (pp 119-126) TG: Lesson 14 (pp 137-143)
3.1.b) round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand; and	<u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module A TG: Lesson 16 (pp 161-170)
3.1.c) compare two whole numbers between 0 and 9,999, using symbols (>, <, or =) and words (greater than, less than, or equal to).	<u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module A TG: Lesson 13 (pp 127-136) TG: Lesson 14 (pp 137-143) TG: Post Assessment Lessons 09-14 (pp 144-145)
3.2 The student will recognize and use the inverse relationships between addition/subtraction and multiplication/division to complete basic fact sentences. The student will use these relationships to solve problems.	<u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module A TG: Lesson 02 (pp 19-31) TG: Lesson 04 (pp 47-50) TG: Lesson 28 (pp 277-284) TG: Lesson 29 (pp 285-294)
3.3 The student will	
3.3.a) name and write fractions (including mixed numbers) represented by a model;	<u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module B TG: Lesson 01 (pp 5-12) TG: Lesson 02 (pp 13-20) TG: Lesson 03 (pp 21-30) TG: Lesson 04 (pp 31-39) TG: Lesson 05 (pp 47-55) TG: Post Assessment Lessons 01-04 (pp 40-41)
3.3.b) model fractions (including mixed numbers) and write the fractions' names;	<u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module B TG: Lesson 01 (pp 5-12) TG: Lesson 02 (pp 13-20) TG: Lesson 03 (pp 21-30) TG: Lesson 04 (pp 31-39)

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TG: Lesson 05 (pp 47-55)
TG: Post Assessment Lessons 01-04 (pp 40-41)

3.3.c) compare fractions having like and unlike denominators, using words and symbols (>, <, or =).

Math Out of the Box
Developing Number Concepts:
Ordering and Arranging Module B
TG: Lesson 02 (pp 13-20)
TG: Lesson 03 (pp 21-30)
TG: Lesson 04 (pp 31-39)

Computation and Estimation

Focus: Computation and Fraction Operations

Standards	Titles That Meet
<p>3.4 The student will estimate solutions to and solve single-step and multistep problems involving the sum or difference of two whole numbers, each 9,999 or less, with or without regrouping.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module A TG: Lesson 15 (pp 151-160) TG: Lesson 16 (pp 161-170) TG: Lesson 17 (pp 171-180) TG: Lesson 18 (pp 181-190) TG: Lesson 19 (pp 191-198) TG: Lesson 20 (pp 199-208) TG: Lesson 21 (pp 209-216) TG: Lesson 22 (pp 217-224)</p>
<p>3.5 The student will recall multiplication facts through the twelves table, and the corresponding division facts.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module A TG: Lesson 08 (pp 77-83) TG: Lesson 25 (pp 251-258) TG: Lesson 26 (pp 259-268) TG: Lesson 28 (pp 277-285) TG: Lesson 29 (pp 285-294) TG: Lesson 30 (pp 295-301) TG: Post Assessment Lessons 01-08 (pp 84-86)</p>
<p>3.6 The student will represent multiplication and division, using area, set, and number line models, and create and solve problems that involve multiplication of two whole numbers, one factor 99 or less and the second factor 5 or less.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module A TG: Lesson 06 (pp 61-68) TG: Lesson 07 (pp 69-76) TG: Lesson 08 (pp 77-83) TG: Lesson 25 (pp 251-258) TG: Lesson 26 (pp 259-268) TG: Lesson 27 (pp 269-277) TG: Lesson 28 (pp 277-285) TG: Lesson 29 (pp 285-294)</p>
<p>3.7 The student will add and subtract proper fractions having like denominators of 12 or less.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Ordering and Arranging Module B TG: Lesson 02 (pp 13-20)</p>

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TG: Lesson 03 (pp 21-30)

TG: Lesson 04 (pp 31-39)

Measurement

Focus: U.S. Customary and Metric Units, Area and Perimeter, and Time

Standards

Titles That Meet

3.8 The student will determine, by counting, the value of a collection of bills and coins whose total value is \$5.00 or less, compare the value of the bills and coins, and make change.

Math Out of the Box

Developing Number Concepts:

Ordering and Arranging Module B

TG: Lesson 08 (pp 79-86)

TG: Lesson 09 (pp 87-94)

TG: Lesson 10 (pp 95-104)

TG: Lesson 11 (pp 105-111)

TG: Lesson 12 (pp 113-119)

TG: Post Assessment Lessons 08-12 (pp 120-121)

3.9 The student will estimate and use U.S. Customary and metric units to measure

3.9.a) length to the nearest 1/2-inch, inch, foot, yard, centimeter, and meter;

Math Out of the Box

Developing Measurement Benchmarks:

Scales and Balances

TG: Lesson 01 (pp 7-16)

TG: Lesson 02 (pp 17-24)

TG: Lesson 03 (pp 25-34)

TG: Lesson 04 (pp 35-40)

TG: Lesson 05 (pp 41-46)

TG: Lesson 06 (pp 47-54)

Developing Number Concepts:

Ordering and Arranging Module B

TG: Lesson 02 (pp 13-20)

3.9.b) liquid volume in cups, pints, quarts, gallons, and liters;

Math Out of the Box

Developing Measurement Benchmarks:

Scales and Balances

TG: Lesson 16 (pp 141-148)

TG: Lesson 17 (pp 149-154)

3.9.c) weight/mass in ounces, pounds, grams, and kilograms; and

Math Out of the Box

Developing Measurement Benchmarks:

Scales and Balances

TG: Lesson 18 (pp 155-162)

TG: Lesson 19 (pp 163-168)

3.9.d) area and perimeter.

Math Out of the Box

Developing Measurement Benchmarks:

Scales and Balances

TG: Lesson 04 (pp 35-40)

TG: Lesson 05 (pp 41-46)

TG: Lesson 06 (pp 47-54)

TG: Lesson 07 (pp 59-66)

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TG: Lesson 08 (pp 67-72)
TG: Lesson 09 (pp 73-80)
TG: Post Assessment Lessons 01-06 (pp 5-6)
TG: Post Assessment Lessons 07-11 (p 58)

3.10 The student will

3.10.a) measure the distance around a polygon in order to determine perimeter;

Math Out of the Box
Developing Measurement Benchmarks:
Scales and Balances
TG: Lesson 04 (pp 35-40)
TG: Lesson 05 (pp 41-46)
TG: Lesson 06 (pp 47-54)
TG: Post Assessment Lessons 01-06 (pp 5-6)

3.10.b) count the number of square units needed to cover a given surface in order to determine area.

Math Out of the Box
Developing Geometric Logic:
Shapes and Paths
TG: Lesson 10 (pp 99-105)

Developing Measurement Benchmarks:
Scales and Balances
TG: Lesson 07 (pp 59-66)
TG: Lesson 08 (pp 67-72)
TG: Lesson 09 (pp 73-80)
TG: Post Assessment Lessons 07-11 (p 58)

3.11 The student will

3.11.a) tell time to the nearest minute, using analog and digital clocks;

Math Out of the Box
Developing Measurement Benchmarks:
Scales and Balances
TG: Lesson 12 (pp 103-110)
TG: Lesson 13 (pp 111-116)
TG: Post Assessment Lessons 12-15 (pp 100-101)

3.11.b) determine elapsed time in one-hour increments over a 12-hour period.

Math Out of the Box
Developing Measurement Benchmarks:
Scales and Balances
TG: Lesson 12 (pp 103-110)
TG: Lesson 13 (pp 111-116)
TG: Lesson 14 (pp 117-126)

3.12 The student will identify equivalent periods of time, including relationships among days, months, and years, as well as minutes and hours.

Math Out of the Box
Developing Measurement Benchmarks:
Scales and Balances
TG: Lesson 12 (pp 103-110)
TG: Lesson 14 (pp 117-126)
TG: Post Assessment Lessons 12-15 (pp 100-101)

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3.13 The student will read temperature to the nearest degree from a Celsius thermometer and a Fahrenheit thermometer. Real thermometers and physical models of thermometers will be used.

Math Out of the Box
Developing Measurement Benchmarks:
Scales and Balances
TG: Lesson 15 (pp 127-134)
TG: Post Assessment Lessons 12-15 (pp 100-101)

Geometry

Focus: Properties and Congruence Characteristics of Plane and Solid Figures

Standards

Titles That Meet

3.14 The student will identify, describe, compare, and contrast characteristics of plane and solid geometric figures (circle, square, rectangle, triangle, cube, rectangular prism, square pyramid, sphere, cone, and cylinder) by identifying relevant characteristics, including the number of angles, vertices, and edges, and the number and shape of faces, using concrete models.

Math Out of the Box
Developing Geometric Logic:
Shapes and Paths
TG: Lesson 01 (pp 7-14)
TG: Lesson 03 (pp 23-31)
TG: Lesson 04 (pp 33-39)
TG: Lesson 05 (pp 47-57)
TG: Lesson 06 (pp 59-65)
TG: Lesson 07 (pp 67-73)
TG: Lesson 08 (pp 81-88)
TG: Lesson 09 (pp 89-97)

3.15 The student will identify and draw representations of points, line segments, rays, angles, and lines.

Math Out of the Box
Developing Geometric Logic:
Shapes and Paths
TG: Lesson 05 (pp 47-57)
TG: Lesson 06 (pp 59-65)
TG: Lesson 07 (pp 67-73)
TG: Lesson 08 (pp 81-88)

3.16 The student will identify and describe congruent and noncongruent plane figures.

Math Out of the Box
Developing Geometric Logic:
Shapes and Paths
TG: Lesson 09 (pp 89-97)
TG: Lesson 14 (pp 139-149)
TG: Lesson 15 (pp 151-157)
TG: Lesson 16 (pp 165-170)
TG: Lesson 17 (pp 171-179)
TG: Post Assessment Lessons 01-04 (pp 4-5)
TG: Post Assessment Lessons 08-11 (pp 79-80)
TG: Post Assessment Lessons 06-20 (pp 162-163)

Probability and Statistics

Focus: Applications of Data and Chance

Standards

Titles That Meet

3.17 The student will
3.17.a) collect and organize data, using observations, measurements, surveys, or experiments;

Math Out of the Box
Developing Algebraic Thinking:
Plotting and Growing
TG: Lesson 13 (pp 149-156)
TG: Lesson 14 (pp 157-164)

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TG: Lesson 15 (pp 171-176)
 TG: Lesson 16 (pp 177-186)
 TG: Lesson 17 (pp 187-194)
 TG: Lesson 18 (pp 201-207)
 TG: Lesson 19 (pp 209-216)
 TG: Lesson 20 (pp 217-222)

3.17.b) construct a line plot, a picture graph, or a bar graph to represent the data;

Math Out of the Box
Developing Algebraic Thinking:
Plotting and Growing
 TG: Lesson 13 (pp 149-156)
 TG: Lesson 14 (pp 157-164)
 TG: Lesson 15 (pp 171-176)
 TG: Lesson 18 (pp 201-207)
 TG: Lesson 19 (pp 209-216)
 TG: Lesson 20 (pp 217-222)

3.17.c) read and interpret the data represented in line plots, bar graphs, and picture graphs and write a sentence analyzing the data.

Math Out of the Box
Developing Algebraic Thinking:
Plotting and Growing
 TG: Lesson 13 (pp 149-156)
 TG: Lesson 14 (pp 157-164)
 TG: Lesson 15 (pp 171-176)
 TG: Lesson 16 (pp 177-186)
 TG: Lesson 17 (pp 187-194)
 TG: Lesson 18 (pp 201-207)
 TG: Lesson 19 (pp 209-216)
 TG: Lesson 20 (pp 217-222)

3.18 The student will investigate and describe the concept of probability as chance and list possible results of a given situation.

Math Out of the Box
Developing Number Concepts:
Ordering and Arranging Module B
 TG: Lesson 13 (pp 127-138)
 TG: Lesson 14 (pp 139-146)
 TG: Lesson 15 (pp 147-150)
 TG: Lesson 16 (pp 151-156)
 TG: Lesson 17 (pp 157-164)

Patterns, Functions, and Algebra
 Focus: Patterns and Property Concepts

Standards	Titles That Meet
<p>3.19 The student will recognize and describe a variety of patterns formed using numbers, tables, and pictures, and extend the patterns, using the same or different forms.</p>	<p>Math Out of the Box Developing Algebraic Thinking: Plotting and Growing TG: Lesson 03 (pp 35-44) TG: Lesson 04 (pp 45-56) TG: Lesson 06 (pp 69-76) TG: Lesson 08 (pp 87-96) TG: Lesson 09 (pp 103-112) TG: Lesson 10 (pp 113-122) TG: Lesson 11 (pp 123-133) TG: Lesson 12 (pp 135-142)</p>

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3.20 The student will

3.20.a) investigate the identity and the commutative properties for addition and multiplication; and

Math Out of the Box
Developing Number Concepts:
Ordering and Arranging Module A
TG: Lesson 01 (pp 5-17)
TG: Lesson 07 (pp 69-76)
TG: Lesson 08 (pp 77-83)

3.20.b) identify examples of the identity and commutative properties for addition and multiplication.

Math Out of the Box
Developing Number Concepts:
Ordering and Arranging Module A
TG: Lesson 01 (pp 5-17)
TG: Lesson 07 (pp 69-76)
TG: Lesson 08 (pp 77-83)

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Number and Number Sense

Focus: Place Value, Fractions, and Decimals

Standards	Titles That Meet
4.1 The student will	
4.1.a) identify orally and in writing the place value for each digit in a whole number expressed through millions;	<u>Math Out of the Box</u> Developing Number Concepts: Stories and Statements Module A TG: Lesson 08 (pp 73-80) TG: Lesson 09 (pp 81-88) TG: Lesson 10 (pp 89-96) TG: Lesson 16 (pp 141-150)
4.1.b) compare two whole numbers expressed through millions, using symbols (>, <, or =); and	<u>Math Out of the Box</u> Developing Number Concepts: Stories and Statements Module A TG: Lesson 11 (pp 97-102) TG: Lesson 12 (pp 103-106) TG: Post Assessment Lessons 08-12 (pp 107-110)
4.1.c) round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand.	<u>Math Out of the Box</u> Developing Number Concepts: Stories and Statements Module A TG: Lesson 13 (pp 115-122) TG: Lesson 14 (pp 123-130) TG: Lesson 15 (pp 131-140) TG: Post Assessment Lessons 13-18 (pp 165-170)
4.2 The student will	
4.2.a) compare and order fractions and mixed numbers;	<u>Math Out of the Box</u> Developing Number Concepts: Stories and Statements Module B TG: Lesson 01 (pp 5-12) TG: Lesson 02 (pp 13-20)
4.2.b) represent equivalent fractions;	<u>Math Out of the Box</u> Developing Measurement Benchmarks: Inside and Outside TG: Lesson 02 (pp 19-28) Developing Number Concepts: Stories and Statements Module B TG: Lesson 01 (pp 5-12) TG: Lesson 02 (pp 13-20) TG: Lesson 03 (pp 21-28) TG: Post Assessment Lessons 01-03 (pp 29-30)
4.2.c) identify the division statement that represents a fraction.	<u>Math Out of the Box</u> Developing Measurement Benchmarks: Inside and Outside TG: Lesson 02 (pp 19-28)

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**Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 01 (pp 5-12)
TG: Lesson 02 (pp 13-20)
TG: Lesson 03 (pp 21-28)
TG: Post Assessment Lessons 01-03 (pp 29-30)**

4.3 The student will

4.3.a) read, write, represent, and identify decimals expressed through thousandths;

**Math Out of the Box
Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 05 (pp 43-50)
TG: Lesson 06 (pp 51-59)
TG: Lesson 07 (pp 59-66)
TG: Lesson 08 (pp 67-74)
TG: Lesson 09 (pp 75-82)
TG: Lesson 11 (pp 97-106)
TG: Lesson 12 (pp 107-113)
TG: Lesson 13 (pp 119-124)**

4.3.b) round decimals to the nearest whole number, tenth, and hundredth;

**Math Out of the Box
Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 10 (pp 89-96)
TG: Lesson 11 (pp 97-106)
TG: Post Assessment Lessons 10-12 (p 114)
TG: Post Assessment Lessons 13-15 (pp 141-142)**

4.3.c) compare and order decimals;

**Math Out of the Box
Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 08 (pp 67-74)
TG: Post Assessment Lessons 04-09 (pp 83-84)**

4.3.d) given a model, write the decimal and fraction equivalents.

**Math Out of the Box
Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 04 (pp 35-42)
TG: Lesson 05 (pp 43-50)
TG: Lesson 07 (pp 59-66)**

Computation and Estimation

Focus: Factors and Multiples, and Fraction and Decimal Operations

Standards

Titles That Meet

4.4 The student will

4.4.a) estimate sums, differences, products, and quotients of whole numbers;

**Math Out of the Box
Developing Number Concepts:
Stories and Statements Module A
TG: Lesson 13 (pp 115-122)
TG: Lesson 14 (pp 123-130)**

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TG: Lesson 15 (pp 131-140)
TG: Lesson 21 (pp 193-202)
TG: Lesson 24 (pp 217-228)
TG: Lesson 29 (pp 265-272)
TG: Post Assessment Lessons 13-18 (pp 165-170)

4.4.b) add, subtract, and multiply whole numbers;

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module A
TG: Lesson 01 (pp 5-14)
TG: Lesson 02 (pp 15-22)
TG: Lesson 04 (pp 31-38)
TG: Lesson 05 (pp 39-48)
TG: Lesson 06 (pp 49-58)
TG: Lesson 15 (pp 131-140)
TG: Lesson 16 (pp 141-150)
TG: Lesson 19 (pp 175-184)

4.4.c) divide whole numbers, finding quotients with and without remainders;

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module A
TG: Lesson 26 (pp 241-250)
TG: Lesson 27 (pp 251-256)
TG: Lesson 28 (pp 257-264)
TG: Lesson 29 (pp 265-272)
TG: Lesson 30 (pp 273-278)

4.4.d) solve single-step and multistep addition, subtraction, and multiplication problems with whole numbers.

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module A
TG: Lesson 01 (pp 5-14)
TG: Lesson 02 (pp 15-22)
TG: Lesson 04 (pp 31-38)
TG: Lesson 05 (pp 39-48)
TG: Lesson 06 (pp 49-58)
TG: Lesson 15 (pp 131-140)
TG: Lesson 16 (pp 141-150)
TG: Lesson 20 (pp 185-192)

4.5 The student will

4.5.c) add and subtract with decimals;

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 11 (pp 97-106)
TG: Lesson 12 (pp 107-113)
TG: Lesson 14 (pp 125-132)
TG: Lesson 15 (pp 133-140)

4.5.d) solve single-step and multistep practical problems involving addition and subtraction with fractions and with decimals.

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 11 (pp 97-106)

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TG: Lesson 12 (pp 107-113)
TG: Lesson 14 (pp 125-132)
TG: Lesson 15 (pp 133-140)

Measurement

Focus: Equivalence within U.S. Customary and Metric Systems

Standards

Titles That Meet

4.6 The student will

4.6.a) estimate and measure weight/mass and describe the results in U.S. Customary and metric units as appropriate;

Math Out of the Box
Developing Measurement Benchmarks:
Inside and Outside
TG: Lesson 17 (pp 171-178)
TG: Lesson 18 (pp 179-184)
TG: Lesson 19 (pp 185-192)

4.6.b) identify equivalent measurements between units within the U.S. Customary system (ounces, pounds, and tons) and between units within the metric system (grams and kilograms).

Math Out of the Box
Developing Measurement Benchmarks:
Inside and Outside
TG: Lesson 17 (pp 171-178)
TG: Lesson 18 (pp 179-184)
TG: Lesson 19 (pp 185-192)

4.7 The student will

4.7.a) estimate and measure length, and describe the result in both metric and U.S. Customary units;

Math Out of the Box
Developing Measurement Benchmarks:
Inside and Outside
TG: Lesson 01 (pp 7-18)
TG: Lesson 02 (pp 19-28)
TG: Lesson 03 (pp 29-40)
TG: Lesson 04 (pp 41-50)
TG: Lesson 05 (pp 51-60)

4.7.b) identify equivalent measurements between units within the U.S. Customary system (inches and feet; feet and yards; inches and yards; yards and miles) and between units within the metric system (millimeters and centimeters; centimeters and meters; and millimeters and meters).

Math Out of the Box
Developing Measurement Benchmarks:
Inside and Outside
TG: Lesson 01 (pp 7-18)
TG: Lesson 03 (pp 29-40)
TG: Lesson 04 (pp 41-50)

4.8 The student will

4.8.a) estimate and measure liquid volume and describe the results in U.S. Customary units;

Math Out of the Box
Developing Measurement Benchmarks:
Inside and Outside
TG: Lesson 17 (pp 171-178)
TG: Lesson 18 (pp 179-184)
TG: Lesson 19 (pp 185-192)

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4.8.b) identify equivalent measurements between units within the U.S. Customary system (cups, pints, quarts, and gallons).

Math Out of the Box
Developing Measurement Benchmarks:
Inside and Outside
TG: Lesson 15 (pp 157-164)
TG: Lesson 16 (pp 165-170)

4.9 The student will determine elapsed time in hours and minutes within a 12-hour period.

Math Out of the Box
Developing Measurement Benchmarks:
Inside and Outside
TG: Lesson 13 (pp 133-140)
TG: Lesson 14 (pp 141-150)

Geometry

Focus: Representations and Polygons

Standards

Titles That Meet

4.10 The student will

4.10.a) identify and describe representations of points, lines, line segments, rays, and angles, including endpoints and vertices; and

Math Out of the Box
Developing Geometric Logic:
Corners and Containers
TG: Lesson 06 (pp 57-63)
TG: Lesson 07 (pp 65-72)
TG: Lesson 08 (pp 73-79)
TG: Lesson 09 (pp 81-86)

4.10.b) identify representations of lines that illustrate intersection, parallelism, and perpendicularity.

Math Out of the Box
Developing Geometric Logic:
Corners and Containers
TG: Lesson 06 (pp 57-63)
TG: Lesson 07 (pp 65-72)

4.11 The student will

4.11.a) investigate congruence of plane figures after geometric transformations, such as reflection, translation, and rotation, using mirrors, paper folding, and tracing; and

Math Out of the Box
Developing Geometric Logic:
Corners and Containers
TG: Lesson 14 (pp 131-137)
TG: Lesson 15 (pp 139-144)
TG: Lesson 16 (pp 145-152)

4.11.b) recognize the images of figures resulting from geometric transformations, such as translation, reflection, and rotation.

Math Out of the Box
Developing Geometric Logic:
Corners and Containers
TG: Lesson 13 (pp 121-129)
TG: Lesson 14 (pp 131-137)
TG: Lesson 15 (pp 139-144)
TG: Lesson 16 (pp 145-152)

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4.12 The student will

4.12.a) define polygon; and

Math Out of the Box
Developing Geometric Logic:
Corners and Containers
TG: Lesson 05 (pp 49-56)

4.12.b) identify polygons with 10 or fewer sides.

Math Out of the Box
Developing Geometric Logic:
Corners and Containers
TG: Lesson 05 (pp 49-56)
TG: Lesson 06 (pp 57-63)

**Probability and Statistics
Focus: Outcomes and Data**

Standards

Titles That Meet

4.13 The student will

4.13.a) predict the likelihood of an outcome of a simple event; and

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 19 (pp 177-184)
TG: Lesson 20 (pp 185-192)
TG: Lesson 21 (pp 193-198)

4.13.b) represent probability as a number between 0 and 1, inclusive.

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module B
TG: Lesson 19 (pp 177-184)
TG: Lesson 20 (pp 185-192)
TG: Lesson 21 (pp 193-198)

4.14 The student will collect, organize, display, and interpret data from a variety of graphs.

Math Out of the Box
Developing Algebraic Thinking:
Signs and Symbols
TG: Lesson 11 (pp 113-122)
TG: Lesson 12 (pp 123-128)
TG: Lesson 13 (pp 129-136)
TG: Lesson 14 (pp 143-150)
TG: Lesson 15 (pp 151-160)
TG: Lesson 16 (pp 161-174)
TG: Lesson 17 (pp 179-184)
TG: Lesson 18 (pp 185-190)

Patterns, Functions, and Algebra

Focus: Geometric Patterns, Equality, and Properties

Standards

Titles That Meet

4.15 The student will recognize, create, and extend numerical and geometric patterns.

Math Out of the Box
Developing Algebraic Thinking:
Signs and Symbols
TG: Lesson 02 (pp 17-26)
TG: Lesson 03 (pp 27-36)
TG: Lesson 04 (pp 43-52)

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TG: Lesson 05 (pp 53-62)
TG: Lesson 06 (pp 63-70)
TG: Lesson 07 (pp 77-84)
TG: Lesson 08 (pp 85-94)
TG: Lesson 09 (pp 95-99)

4.16 The student will

4.16.a) recognize and demonstrate the meaning of equality in an equation;

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module A
TG: Lesson 01 (pp 5-14)
TG: Lesson 02 (pp 15-22)
TG: Lesson 05 (pp 39-48)
TG: Lesson 06 (pp 49-58)
TG: Lesson 07 (pp 59-62)
TG: Lesson 08 (pp 73-80)
TG: Lesson 09 (pp 81-88)

4.16.b) investigate and describe the associative property for addition and multiplication.

Math Out of the Box
Developing Number Concepts:
Stories and Statements Module A
TG: Lesson 02 (pp 15-22)

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Number and Number Sense

Focus: Prime and Composite Numbers and Rounding Decimals

Standards	Titles That Meet
<p>5.1 The student, given a decimal through thousandths, will round to the nearest whole number, tenth, or hundredth.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Values and Variables Module A TG: Lesson 12 (pp 111-118) TG: Lesson 13 (pp 119-126) TG: Lesson 14 (pp 127-132)</p>
<p>5.2 The student will</p> <p>5.2.a) recognize and name fractions in their equivalent decimal form and vice versa;</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Values and Variables Module A TG: Lesson 12 (pp 111-118) TG: Lesson 13 (pp 119-126) TG: Lesson 14 (pp 127-132)</p> <p>Developing Number Concepts: Values and Variables Module B TG: Lesson 13 (pp 117-122)</p>
<p>5.2.b) compare and order fractions and decimals in a given set from least to greatest and greatest to least.</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Values and Variables Module A TG: Lesson 12 (pp 111-118) TG: Lesson 13 (pp 119-126) TG: Lesson 14 (pp 127-132)</p> <p>Developing Number Concepts: Values and Variables Module B TG: Lesson 05 (pp 47-53) TG: Lesson 06 (pp 55-64) TG: Lesson 07 (pp 65-72)</p>
<p>5.3 The student will</p> <p>5.3.a) identify and describe the characteristics of prime and composite numbers;</p>	<p><u>Math Out of the Box</u> Developing Number Concepts: Values and Variables Module A TG: Lesson 28 (pp 265-272) TG: Lesson 29 (pp 273-280) TG: Lesson 30 (pp 281-287)</p> <p>Developing Number Concepts: Values and Variables Module B TG: Lesson 01 (pp 5-14) TG: Lesson 02 (pp 15-24)</p>

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5.3.b) identify and describe the characteristics of even and odd numbers.

Math Out of the Box
Developing Number Concepts:
Values and Variables Module A
TG: Lesson 28 (pp 265-272)

Computation and Estimation

Focus: Multistep Applications and Order of Operations

Standards

Titles That Meet

5.4 The student will create and solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division with and without remainders of whole numbers.

Math Out of the Box
Developing Number Concepts:
Values and Variables Module A
TG: Lesson 01 (pp 5-14)
TG: Lesson 02 (pp 15-24)
TG: Lesson 03 (pp 25-34)
TG: Lesson 21 (pp 195-204)
TG: Lesson 22 (pp 205-214)
TG: Lesson 25 (pp 229-240)
TG: Lesson 26 (pp 241-250)
TG: Lesson 27 (pp 251-257)

5.5 The student will

5.5.a) find the sum, difference, product, and quotient of two numbers expressed as decimals through thousandths (divisors with only one nonzero digit);

Math Out of the Box
Developing Number Concepts:
Values and Variables Module A
TG: Lesson 16 (pp 149-158)
TG: Lesson 17 (pp 159-166)
TG: Lesson 19 (pp 175-180)
TG: Lesson 20 (pp 181-188)

Developing Number Concepts:
Values and Variables Module B
TG: Lesson 10 (pp 87-93)
TG: Lesson 11 (pp 95-102)
TG: Lesson 12 (pp 103-109)
TG: Lesson 13 (pp 117-122)

5.5.b) create and solve single-step and multistep practical problems involving decimals.

Math Out of the Box
Developing Number Concepts:
Values and Variables Module A
TG: Lesson 16 (pp 149-158)
TG: Lesson 17 (pp 159-166)
TG: Lesson 19 (pp 175-180)
TG: Lesson 20 (pp 181-188)

5.6 The student will solve single-step and multistep practical problems involving addition and subtraction with fractions and mixed numbers and express answers in simplest form.

Math Out of the Box
Developing Number Concepts:
Values and Variables Module B
TG: Lesson 09 (pp 81-86)
TG: Lesson 10 (pp 87-93)
TG: Lesson 11 (pp 95-102)
TG: Lesson 12 (pp 103-109)
TG: Lesson 13 (pp 117-122)

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5.7 The student will evaluate whole number numerical expressions, using the order of operations limited to parentheses, addition, subtraction, multiplication, and division.

Math Out of the Box
**Developing Number Concepts:
 Values and Variables Module A**
 TG: Lesson 01 (pp 5-14)
 TG: Lesson 02 (pp 15-24)
 TG: Lesson 03 (pp 25-34)
 TG: Lesson 04 (pp 35-44)
 TG: Lesson 05 (pp 45-52)

Measurement

Focus: Perimeter, Area, Volume, and Equivalent Measures

Standards

Titles That Meet

5.8 The student will

5.8.a) find perimeter, area, and volume in standard units of measure;

Math Out of the Box
**Developing Geometric Logic:
 Conjectures and Transformations**
 TG: Lesson 12 (pp 115-122)

**Developing Measurement Benchmarks:
 Tools and Time**
 TG: Lesson 05 (pp 45-54)
 TG: Lesson 06 (pp 55-60)
 TG: Lesson 07 (pp 61-68)
 TG: Lesson 08 (pp 69-74)
 TG: Lesson 10 (pp 81-87)

5.8.b) differentiate among perimeter, area, and volume and identify whether the application of the concept of perimeter, area, or volume is appropriate for a given situation;

Math Out of the Box
**Developing Geometric Logic:
 Conjectures and Transformations**
 TG: Lesson 12 (pp 115-122)

**Developing Measurement Benchmarks:
 Tools and Time**
 TG: Lesson 05 (pp 45-54)
 TG: Lesson 06 (pp 55-60)
 TG: Lesson 10 (pp 81-88)
 TG: Lesson 20 (pp 159-166)

5.8.c) identify equivalent measurements within the metric system;

Math Out of the Box
**Developing Measurement Benchmarks:
 Tools and Time**
 TG: Lesson 16 (pp 135-140)
 TG: Lesson 17 (pp 141-145)

5.8.d) estimate and then measure to solve problems, using U.S. Customary and metric units;

Math Out of the Box
**Developing Measurement Benchmarks:
 Tools and Time**
 TG: Lesson 05 (pp 45-54)
 TG: Lesson 06 (pp 55-60)
 TG: Lesson 07 (pp 61-68)
 TG: Lesson 16 (pp 135-139)

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TG: Lesson 17 (pp 141-145)
 TG: Lesson 18 (pp 147-152)
 TG: Lesson 19 (pp 153-158)
 TG: Lesson 20 (pp 159-165)

5.8.e) choose an appropriate unit of measure for a given situation involving measurement using U.S. Customary and metric units.

Math Out of the Box
**Developing Measurement Benchmarks:
 Tools and Time**
 TG: Lesson 01 (pp 7-14)
 TG: Lesson 02 (pp 15-20)
 TG: Lesson 03 (pp 21-30)
 TG: Lesson 04 (pp 31-38)
 TG: Lesson 16 (pp 135-139)
 TG: Lesson 17 (pp 141-145)
 TG: Lesson 19 (pp 153-158)
 TG: Lesson 20 (pp 159-165)

5.9 The student will identify and describe the diameter, radius, chord, and circumference of a circle.

Math Out of the Box
**Developing Geometric Logic:
 Conjectures and Transformations**
 TG: Lesson 10 (pp 95-101)
 TG: Post Assessment L06-10 (pp 55-57)

5.10 The student will determine an amount of elapsed time in hours and minutes within a 24-hour period.

Math Out of the Box
**Developing Measurement Benchmarks:
 Tools and Time**
 TG: Lesson 11 (pp 95-100)
 TG: Lesson 12 (pp 101-108)
 TG: Lesson 13 (pp 109-114)

5.11 The student will measure right, acute, obtuse, and straight angles.

Math Out of the Box
**Developing Geometric Logic:
 Conjectures and Transformations**
 TG: Lesson 08 (pp 79-84)
 TG: Lesson 09 (pp 85-93)

Geometry

Focus: Classification and Subdividing

Standards	Titles That Meet
<p>5.12 The student will classify</p> <p>5.12.a) angles as right, acute, obtuse, or straight; and</p>	<p><u>Math Out of the Box</u> Developing Geometric Logic: Conjectures and Transformations TG: Lesson 08 (pp 79-84) TG: Lesson 09 (pp 85-93) TG: Post Assessment L06-10 (pp 55-57)</p>

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5.12.b) triangles as right, acute, obtuse, equilateral, scalene, or isosceles.

Math Out of the Box
Developing Geometric Logic:
Conjectures and Transformations
TG: Lesson 08 (pp 79-84)
TG: Lesson 09 (pp 85-93)

5.13 The student, using plane figures (square, rectangle, triangle, parallelogram, rhombus, and trapezoid), will

5.13.a) develop definitions of these plane figures;

Math Out of the Box
Developing Geometric Logic:
Conjectures and Transformations
TG: Lesson 06 (pp 59-69)
TG: Lesson 08 (pp 79-84)
TG: Lesson 09 (pp 85-93)
TG: Lesson 10 (pp 95-101)

5.13.b) investigate and describe the results of combining and subdividing plane figures.

Math Out of the Box
Developing Geometric Logic:
Conjectures and Transformations
TG: Lesson 12 (pp 115-122)
TG: Lesson 14 (pp 135-141)
TG: Lesson 15 (pp 143-149)
TG: Lesson 16 (pp 151-157)

Developing Measurement Benchmarks:
Tools and Time
TG: Lesson 07 (pp 61-67)
TG: Lesson 08 (pp 69-74)

Probability and Statistics

Focus: Outcomes and Measures of Center

Standards	Titles That Meet
5.14 The student will make predictions and determine the probability of an outcome by constructing a sample space.	<u>Math Out of the Box</u> Developing Number Concepts: Values and Variables Module B TG: Lesson 20 (pp 179-185) TG: Lesson 21 (pp 187-192) TG: Lesson 22 (pp 193-199)
5.15 The student, given a problem situation, will collect, organize, and interpret data in a variety of forms, using stem-and-leaf plots and line graphs.	<u>Math Out of the Box</u> Developing Algebraic Thinking: Steps and Distance TG: Lesson 19 (pp 183-190) TG: Post Assessment Lesson 17-20 (pp 162-163)
5.16 The student will 5.16.a) describe mean, median, and mode as measures of center;	<u>Math Out of the Box</u> Developing Algebraic Thinking: Steps and Distance

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TG: Lesson 12 (pp 113-120)
 TG: Lesson 13 (pp 121-130)
 TG: Lesson 17 (pp 165-174)
 TG: Lesson 18 (pp 175-181)
 TG: Lesson 19 (pp 183-190)
 TG: Post Assessment Lesson 11-13 (pp 102-103)
 TG: Post Assessment Lesson 17-20 (pp 162-163)

5.16.b) describe mean as fair share;

Math Out of the Box
Developing Algebraic Thinking:
Steps and Distance
 TG: Post Assessment Lesson 12 (pp 113-120)
 TG: Post Assessment Lesson 13 (pp 121-130)

5.16.c) find the mean, median, mode, and range of a set of data; and

Math Out of the Box
Developing Algebraic Thinking:
Steps and Distance
 TG: Lesson 12 (pp 113-120)
 TG: Lesson 13 (pp 121-130)
 TG: Lesson 17 (pp 165-174)
 TG: Lesson 18 (pp 175-181)
 TG: Lesson 19 (pp 183-190)
 TG: Post Assessment Lesson 11-13 (pp 102-103)
 TG: Post Assessment Lesson 17-20 (pp 162-163)

5.16.d) describe the range of a set of data as a measure of variation.

Math Out of the Box
Developing Algebraic Thinking:
Steps and Distance
 TG: Lesson 13 (pp 121-130)
 TG: Lesson 16 (pp 151-158)
 TG: Lesson 19 (pp 183-190)

**Patterns, Functions, and Algebra
Focus: Equations and Properties**

Standards	Titles That Meet
5.17 The student will describe the relationship found in a number pattern and express the relationship.	<u>Math Out of the Box</u> Developing Algebraic Thinking: Steps and Distance TG: Lesson 02 (pp 19-26) TG: Lesson 03 (pp 27-34) TG: Lesson 04 (pp 39-46) TG: Lesson 05 (pp 47-54) TG: Lesson 06 (pp 55-59) TG: Lesson 07 (pp 67-76) TG: Lesson 08 (pp 77-83) TG: Lesson 09 (pp 85-90)

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5.18 The student will

5.18.a) investigate and describe the concept of variable;

Math Out of the Box
Developing Algebraic Thinking:
Steps and Distance
TG: Lesson 04 (pp 39-46)
TG: Lesson 05 (pp 47-54)
TG: Lesson 06 (pp 55-60)
TG: Lesson 07 (pp 67-76)
TG: Lesson 08 (pp 77-84)
TG: Lesson 09 (pp 85-90)
TG: Lesson 10 (pp 91-98)

5.18.b) write an open sentence to represent a given mathematical relationship, using a variable;

Math Out of the Box
Developing Algebraic Thinking:
Steps and Distance
TG: Lesson 04 (pp 39-46)
TG: Lesson 05 (pp 47-54)
TG: Lesson 06 (pp 55-60)
TG: Lesson 07 (pp 67-76)
TG: Lesson 08 (pp 77-84)
TG: Lesson 09 (pp 85-90)

Developing Number Concepts:
Values and Variables Module A
TG: Lesson 07 (pp 63-72)
TG: Lesson 08 (pp 73-78)

5.18.c) model one-step linear equations in one variable, using addition and subtraction;

Math Out of the Box
Developing Algebraic Thinking:
Steps and Distance
TG: Lesson 01 (pp 5-13)
TG: Lesson 02 (pp 15-23)

Developing Number Concepts:
Values and Variables Module A
TG: Lesson 07 (pp 63-70)

5.18.d) create a problem situation based on a given open sentence, using a single variable.

Math Out of the Box
Developing Algebraic Thinking:
Steps and Distance
TG: Lesson 04 (pp 39-46)
TG: Lesson 05 (pp 47-54)

Developing Number Concepts:
Values and Variables Module A
TG: Lesson 01 (pp 5-14)
TG: Lesson 02 (pp 15-24)
TG: Lesson 07 (pp 63-72)

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5.19 The student will investigate and recognize the distributive property of multiplication over addition.

Math Out of the Box
Developing Number Concepts:
Values and Variables Module A
TG: Lesson 04 (pp 35-44)
TG: Lesson 05 (pp 45-52)

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