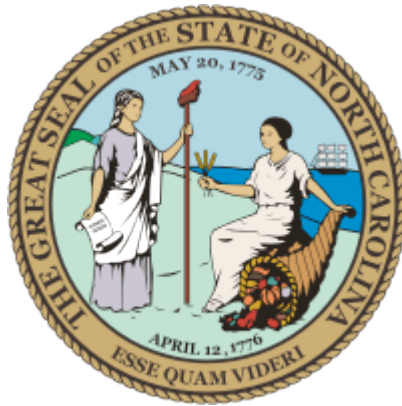


Math Out of the Box[®] Correlation to North Carolina




Standard Course of Study for Mathematics - 2010-2011 Standards Grades K-5



Math Out of the Box[®] Correlation to North Carolina Standard Course of Study for Mathematics 2010-2011 Grades K-5

The following pages pertain to Math Out of the Box[®] K-5 modules that have been aligned with the North Carolina Standard Course of Study for Mathematics, for Kindergarten through Fifth grades. For your reference, under each standard are the aligned strands, module titles, and lessons within that module with corresponding page numbers.

Math Out of the Box[®] Integrated Curriculum Matrix				
 math outofthebox	<i>Developing Algebraic Thinking</i>	<i>Developing Geometric Logic</i>	<i>Developing Measurement Benchmarks</i>	<i>Developing Number Concepts</i>
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>

CAROLINA
www.carolinacurriculum.com

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.

**Math Out of the Box® Correlation to North Carolina
Standard Course of Study for Mathematics 2010-2011**

**Kindergarten - Mathematics
North Carolina Math 2010-2011 Standards**

COMPETENCY GOAL	NC.1.	Number and Operations: The learner will understand numbers and ways to represent numbers.
OBJECTIVE	1.01.	Develop number sense for whole numbers from 0 through 10.
EXPECTATION	1.01.a.	Use 1 to 1 correspondence and other counting strategies to determine how many. <ul style="list-style-type: none"> • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • TG: Post Assessment L01-09 (pp 72-76) • TG: Post Assessment L10-15 (pp 130-133) • TG: Post Assessment L16-20 (pp 180-182) • DNC-B: Like and Unlike • TG: L01-20 (pp 5-181) • TG: Post Assessment L01-08 (pp 65-71) • TG: Post Assessment L09-12 (pp 109-111)
EXPECTATION	1.01.b.	Connect the model, number word (orally) and numeral using multiple representations. <ul style="list-style-type: none"> • DMB: Over and Under • TG: L15 (pp 103-108) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • TG: Post Assessment L10-15 (pp 130-133) • DNC-B: Like and Unlike • TG: L01-20 (pp 5-181)
EXPECTATION	1.01.c.	Compare and order sets and numbers (more than, less than, same/equal). <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: Unit Pre Assessment (pp xxii-xxiv) • DGL: Towers and Trails • TG: L15 (pp 113-118) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • DNC-B: Like and Unlike • TG: L01-12 (pp 5-108) • TG: Post Assessment L09-12 (pp 109-111)
EXPECTATION	1.01.d.	Recognize and write numerals. <ul style="list-style-type: none"> • DMB: Over and Under • TG: L15 (pp 103-108) • DNC-A: Like and Unlike • TG: L04-20 (pp 27-179) • TG: Post Assessment L01-09 (pp 72-76) • TG: Post Assessment L10-15 (pp 130-133) • TG: Post Assessment L16-20 (pp 180-182) • DNC-B: Like and Unlike • TG: L01-03 (pp 5-14) • TG: L06 (pp 43-49) • TG: L12 (pp 101-108) • TG: Post Assessment L01-08 (pp 65-71) • TG: Post Assessment L09-12 (pp 109-111)

EXPECTATION	1.01.e.	<p>Recognize (subitize) the amount in a given set of patterned dots/objects.</p> <ul style="list-style-type: none"> • DGL: Towers and Trails • TG: L15 (pp 113-118) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • DNC-B: Like and Unlike • TG: L01-12 (pp 5-108)
EXPECTATION	1.01.f.	<p>Determine number before and after a given number.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L13-20 (pp 93-150) • TG: Post Assessment L11-20 (pp 124-125) • TG: Unit Pre Assessment (pp xxii-xxiv) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • DNC-B: Like and Unlike • TG: L01-12 (pp 5-108) • TG: Post Assessment L09-12 (pp 109-111)
EXPECTATION	1.01.g.	<p>Identify and sequence ordinal numbers.</p> <ul style="list-style-type: none"> • DNC-B: Like and Unlike • TG: L04 (pp 27-35) • TG: L05 (pp 36-42) • TG: Post Assessment L01-08 (pp 65-71)
EXPECTATION	1.01.h.	<p>Compose and decompose numbers: recognize part-part-whole relationships; use 5 and 10 as referents.</p> <ul style="list-style-type: none"> • DNC-A: Like and Unlike • TG: L12-15 (pp 98-129) • TG: Post Assessment L01-09 (pp 72-76) • DNC-B: Like and Unlike • TG: L11 (pp 91-100) • TG: Post Assessment L09-12 (pp 109-111)
OBJECTIVE	1.02.	<p>Model and count objects in a set and rote count:</p>
EXPECTATION	1.02.a.	<p>Forward to 30.</p> <ul style="list-style-type: none"> • DNC-B: Like and Unlike • TG: L01-03 (pp 5-26) • TG: L05-07 (pp 36-56) • TG: L09 (pp 75-82) • TG: L11-12 (pp 91-108) • TG: Post Assessment L01-08 (pp 65-71) • TG: Post Assessment L09-12 (pp 109-111)
EXPECTATION	1.02.b.	<p>Backward from 10.</p> <ul style="list-style-type: none"> • DNC-A: Like and Unlike • TG: L09 (pp 67-71) • TG: L16-19 (pp 139-172) • TG: Post Assessment L16-20 (pp 180-182)

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OBJECTIVE	1.03.	Demonstrate and illustrate the meaning of joining and separating sets with objects to solve problems for whole numbers from 0-10; use informal language to describe the strategies. <ul style="list-style-type: none"> • DNC-B: Like and Unlike • TG: L13-15 (pp 119-140)
COMPETENCY GOAL	NC.2.	Measurement: The learner will investigate the concepts and processes of measurement.
OBJECTIVE	2.01.	Recognize length and mass as measurable attributes. <ul style="list-style-type: none"> • DMB: Over and Under • TG: L01-08 (pp 7-52) • TG: L17 (pp 119-126)
OBJECTIVE	2.02.	Compare and order objects with respect to a given attribute (length, mass). <ul style="list-style-type: none"> • DMB: Over and Under • TG: L01-03 (pp 7-24) • TG: L17 (pp 119-126) • TG: Post Assessment L01-09 (p 5) • TG: Post Assessment L17-20 (p 118) • TG: Unit Pre Assessment (pp xxii-xxv)
OBJECTIVE	2.03.	Make connections between events and experiences and the cyclical measure of time.
EXPECTATION	2.03.a.	Sequence common events. <ul style="list-style-type: none"> • DMB: Over and Under • TG: L13 (pp 89-96)
EXPECTATION	2.03.b.	Sequence days of the week, months, and seasons. <ul style="list-style-type: none"> • DMB: Over and Under • TG: L14-15 (pp 97-108)
COMPETENCY GOAL	NC.3.	Geometry: The learner will investigate the concepts of geometry.
OBJECTIVE	3.01.	Identify, describe, compare, and sort geometric three-dimensional figures (spheres, cubes, cylinders, and cones) by attributes. <ul style="list-style-type: none"> • DGL: Towers and Trails • TG: L01-06 (pp 7-46) • TG: L15 (pp 113-118) • TG: Post Assessment L01-06 (p 5) • TG: Unit Pre Assessment (pp xxiii-xxvi)
OBJECTIVE	3.02.	Identify, model, describe, compare, and sort geometric two-dimensional figures (triangles, rectangles including squares, and circles) by attributes. <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L01 (pp 5-12) • DGL: Towers and Trails • TG: L07-12 (pp 53-93) • TG: L16 (pp 119-124)

		<ul style="list-style-type: none"> • TG: Post Assessment L07-12 (p 51)
OBJECTIVE	3.03.	<p>Demonstrate spatial reasoning to fill shapes and model objects found in the environment.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L01 (pp 5-12) • TG: L03 (pp 19-24) • TG: L07 (pp 55-60) • TG: L09 (pp 67-72) • TG: L10 (pp 73-76) • DGL: Towers and Trails • TG: L01-20 (pp 7-151)
OBJECTIVE	3.04.	<p>Identify objects in the environment and describe their relative locations using positional and directional words.</p> <ul style="list-style-type: none"> • DGL: Towers and Trails • TG: L03 (pp 19-25) • TG: L05 (pp 33-39) • TG: L17-20 (pp 129-151) • TG: Post Assessment L17-20 (p 128)
COMPETENCY GOAL	NC.4.	Data Analysis and Probability: The learner will collect, organize and display data to answer questions.
OBJECTIVE	4.01.	Use the processes of statistical investigation as a group activity.
EXPECTATION	4.01.a.	<p>Pose questions and collect data about themselves and their surroundings.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L12-20 (pp 87-150) • TG: Post Assessment L11-20 (pp 124-125) • TG: Unit Pre Assessment (pp xxii-xxiv) • DGL: Towers and Trails • TG: L10-11 (pp 77-87) • DNC-B: Like and Unlike • TG: L16-19 (pp 149-176)
EXPECTATION	4.01.b.	<p>Organize and represent data using concrete objects, pictures or pictorial graphs.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L17-20 (pp 127-150)
EXPECTATION	4.01.c.	<p>Evaluate how the data help answer the posed question.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L14-16 (pp 103-120)
COMPETENCY GOAL	NC.5.	Algebra: The learner will investigate algebraic concepts including object classification, patterns and equality.
OBJECTIVE	5.01.	<p>Identify attributes, sort objects by one attribute and justify the rule used to classify.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L11-20 (pp 81-150) • DGL: Towers and Trails • TG: L02-03 (pp 13-25) • TG: L06-07 (pp 41-59)

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		<ul style="list-style-type: none"> • TG: L10 (pp 77-81) • TG: L12-15 (pp 89-118) • DMB: Over and Under • TG: L01 (pp 7-12) • DNC-A: Like and Unlike • TG: L07 (pp 51-59)
OBJECTIVE	5.02.	<p>Identify, duplicate, extend, and create repeating patterns using actions, words and models.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L02-10 (pp 13-76) • TG: Post Assessment L01-10 (p 54) • TG: Unit Pre Assessment (pp xxii-xxiv) • DNC-A: Like and Unlike • TG: L02 (pp 11-18) • TG: L16-19 (pp 139-172)
OBJECTIVE	5.03.	<p>Develop an understanding of the relationship between part-part-whole and the concept of equality.</p> <ul style="list-style-type: none"> • DNC-A: Like and Unlike • TG: L03-09 (pp 19-71) • DNC-B: Like and Unlike • TG: L12-15 (pp 101-140) • TG: Post Assessment L09-12 (pp 109-111)
COMPETENCY GOAL	NC.6.	Problem Solving and Reasoning: The student will solve problems and reason mathematically.
OBJECTIVE	6.01.	<p>Recognize and apply connections among mathematical ideas to solve problems.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L02 (pp 13-18) • TG: L13-14 (pp 93-108) • TG: L17-20 (pp 127-150) • DMB: Over and Under • TG: L19 (pp 133-138) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • DNC-B: Like and Unlike • TG: L01-20 (pp 5-181)
OBJECTIVE	6.02.	<p>Develop fluency in solving problems that arise in mathematics and in other contexts, building mathematical knowledge through problem solving.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L15 (pp 109-114) • DGL: Towers and Trails • TG: L01-19 (pp 7-145) • TG: Post Assessment L13-16 (p 98) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • DNC-B: Like and Unlike • TG: L01-20 (pp 5-181)
OBJECTIVE	6.03.	Use reasoning to understand situations and extend thinking.

		<ul style="list-style-type: none"> • DMB: Over and Under • TG: L19 (pp 133-138) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • DNC-B: Like and Unlike • TG: L01-20 (pp 5-181)
OBJECTIVE	6.04.	<p>Use the language of mathematics and appropriate technology to communicate mathematical ideas demonstrating understanding of problems and solutions.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L01-03 (pp 5-24) • TG: L11 (pp 81-86) • TG: L13-20 (pp 93-150) • TG: Post Assessment L01-10 (p 54) • TG: Post Assessment L11-20 (pp 124-125) • TG: Unit Pre Assessment (pp xxii-xxiv) • DGL: Towers and Trails • TG: L01-20 (pp 7-151) • TG: Post Assessment L13-16 (p 98) • DMB: Over and Under • TG: L01-20 (pp 7-144) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • DNC-B: Like and Unlike • TG: L01-20 (pp 5-181)
OBJECTIVE	6.05.	<p>Explain personal representations that communicate mathematical ideas.</p> <ul style="list-style-type: none"> • DAT: Rhythm and Design • TG: L01 (pp 5-12) • TG: L03-20 (pp 19-150) • TG: Post Assessment L01-10 (p 54) • TG: Post Assessment L11-20 (pp 124-125) • TG: Unit Pre Assessment (pp xxii-xxiv) • DGL: Towers and Trails • TG: L01-16 (pp 7-124) • DMB: Over and Under • TG: L01-11 (pp 7-80) • DNC-A: Like and Unlike • TG: L01-20 (pp 5-179) • DNC-B: Like and Unlike • TG: L01-20p 5-181)

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Grade 1 - Mathematics

North Carolina Math 2010-2011 Standards

COMPETENCY GOAL	NC.1.	Number and Operations: The learner will demonstrate an understanding of the relationships among numbers, operations, and equality.
OBJECTIVE	1.01.	Develop number sense for whole numbers to at least 100.
EXPECTATION	1.01.a.	Count, read and write numbers. <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L04 (pp 33-40) • TG: L11-12 (pp 105-118) • TG: L18-22 (pp 173-217) • TG: Post Assessment L18-22 (pp 218-221) • DNC-B: Families and Facts • TG: L05-07 (pp 51-81) • TG: Post Assessment L04-07 (pp 82-83)
EXPECTATION	1.01.b.	Connect the model, number words and numbers using a variety of physical models and other representations. <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • TG: Post Assessment L01-L04 (pp 41-43) • TG: Post Assessment L18-L22 (pp 218-221) • DNC-B: Families and Facts • TG: L01-07 (pp 5-81) • TG: Post Assessment L04-07 (pp 82-83)
EXPECTATION	1.01.c.	Describe patterns in counting by ones (both forward and backward) and skip counting; use those patterns to predict the number before and after the counting sequences. <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L07-20 (pp 61-176) • TG: Post Assessment L07-10 (p 60) • TG: Post Assessment L11-13 (p 98) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • TG: Unit Pre Assessment (pp xxiv-xxx) • DMB: Up and Down • TG: Post Assessment L13-17 (pp 99-101) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • TG: Post Assessment L18-L22 (pp 218-221) • DNC-B: Families and Facts • TG: L01-07 (pp 5-81) • TG: Post Assessment L04-07 (pp 82-83)
EXPECTATION	1.01.d.	Use efficient counting strategies to determine how many; explore groupings of objects by 2's, 5's, 10's to determine how many. <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L07-09 (pp 61-88) • TG: Post Assessment L07-10 (p 60) • TG: Unit Pre Assessment (pp xxiv-xxx) • DMB: Up and Down • TG: L02 (pp 15-20) • TG: L06 (pp 37-42)

		<ul style="list-style-type: none"> • TG: L12 (pp 89-94) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • TG: Post Assessment L18-L22 (pp 218-221) • DNC-B: Families and Facts • TG: L01-07 (pp 5-81) • TG: Post Assessment L04-07 (pp 82-83) • TG: L09 (pp 97-106)
EXPECTATION	1.01.e.	<p>Compose and decompose numbers (part-part-whole).</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L05-07 (pp 49-76)
EXPECTATION	1.01.f.	<p>Recognize equivalence; compare and order sets and numbers using words rather than symbolic notation.</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • TG: Post Assessment L18-L22 (pp 218-221) • DNC-B: Families and Facts • TG: L01-07 (pp 5-81) • TG: Post Assessment L04-07 (pp 82-83)
OBJECTIVE	1.02.	<p>Represent whole numbers greater than 10 in groups of tens and ones using objects, pictures, and numbers.</p> <ul style="list-style-type: none"> • DNC-B: Families and Facts • TG: L04-07 (pp 41-81) • TG: Post Assessment L04-07 (pp 82-83)
OBJECTIVE	1.03.	<p>Develop fluency with recall of addition facts (sums to 10) and the related subtraction facts.</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L03-17 (pp 25-166) • TG: Post Assessment L05-12 (pp 119-122) • TG: Post Assessment L13-17 (pp 167-168) • DNC-B: Families and Facts • TG: L08-14 (pp 89-144) • TG: Post Assessment L08-14 (pp 145-146)
OBJECTIVE	1.04.	<p>Demonstrate the meaning and use of addition and subtraction to 100 with models.</p>
EXPECTATION	1.04.a.	<p>Explore properties of addition (i.e. commutative and identity) and the inverse relationship between addition and subtraction.</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L06-09 (pp 59-96) • TG: L13 (pp 127-134) • TG: L15-17 (pp 143-166) • DNC-B: Families and Facts • TG: L05-06 (pp 51-74) • TG: L10-13 (pp 107-138)
EXPECTATION	1.04.b.	<p>Model, describe, and illustrate these operations in contexts using multiple strategies.</p>

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		<ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L06-09 (pp 59-96) • TG: L13 (pp 127-134) • TG: L15-17 (pp 143-166) • DNC-B: Families and Facts • TG: L01-14 (pp 5-144) • TG: Post Assessment L08-14 (pp 145-146)
EXPECTATION	1.04.c.	<p>Estimate sums and differences and justify the reasonableness of solutions in meaningful contexts.</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L06-08 (pp 59-86) • TG: L15-16 (pp 143-160) • DNC-B: Families and Facts • TG: L12-14 (pp 123-144)
COMPETENCY GOAL	NC.2.	Measurement: The learner will develop an understanding of the process of measurement using nonstandard units.
OBJECTIVE	2.01.	<p>Compare and order two or more objects or events with respect to a given attribute (linear, mass, capacity, duration).</p> <ul style="list-style-type: none"> • DMB: Up and Down • TG: L02 (pp 15-20) • TG: L18-19 (pp 145-156) • TG: Post Assessment L18-20 (p 144) • TG: Unit Pre Assessment (pp xxii-xxix)
OBJECTIVE	2.02.	<p>Select appropriate non-standard units to estimate and measure objects with respect to a given attribute using multiple copies of same-size units.</p> <ul style="list-style-type: none"> • DMB: Up and Down • TG: L01-03 (pp 7-24) • TG: L07 (pp 43-48) • TG: L18 (pp 145-150) • DNC-B: Families and Facts • TG: L03 (pp 25-33)
COMPETENCY GOAL	NC.3.	Geometry: The learner will analyze characteristics properties and relationships of geometric figures.
OBJECTIVE	3.01.	<p>Identify, describe, compare, and sort geometric three-dimensional figures (including prisms and pyramids) by attributes.</p> <ul style="list-style-type: none"> • DGL: Symmetry and Shapes • TG: L01-06 (pp 7-45) • TG: Post Assessment L01-06 (p 5) • TG: Unit Pre Assessment (pp xxiii-xxvii)
OBJECTIVE	3.02.	<p>Identify, model, describe, compare, and sort geometric two-dimensional figures (including parallelograms, rhombus, trapezoids, and hexagons) by attributes.</p> <ul style="list-style-type: none"> • DGL: Symmetry and Shapes • TG: L07-12 (pp 53-87) • TG: L16 (pp 111-116)
OBJECTIVE	3.03.	Predict and investigate the results of composing and decomposing two-dimensional figures

		and describe the part-whole relationships of these figures. <ul style="list-style-type: none"> • DGL: Symmetry and Shapes • TG: L01-02 (pp 7-22) • TG: L06-07 (pp 41-60)
OBJECTIVE	3.04.	Describe relationships of objects using proximity, position and direction; follow and/or formulate directions to move or place an object. <ul style="list-style-type: none"> • DGL: Symmetry and Shapes • TG: L17-19 (pp 121-139) • TG: Post Assessment L17-20 (p 120) • TG: Unit Pre Assessment (pp xxiii-xxvii)
COMPETENCY GOAL	NC.4.	Data Analysis and Probability: The learner will gather, organize, and analyze data to answer questions.
OBJECTIVE	4.01.	Use the processes of statistical investigation.
EXPECTATION	4.01.a.	Pose questions, collect data to answer questions, and make decisions using data. <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L11-20 (pp 99-176) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • DGL: Symmetry and Shapes • TG: L06 (pp 41-45) • TG: L12 (pp 83-87) • DNC-B: Families and Facts • TG: L17-20 (pp 167-191) • TG: Post Assessment L15-20 (p 192)
EXPECTATION	4.01.b.	Organize and represent data using concrete objects, pictures or pictorial graphs, line plots and tallies. <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L15-16 (pp 133-146) • TG: Post Assessment L14-16 (p 126) • TG: Unit Pre Assessment (pp xxiv-xxx) • DGL: Symmetry and Shapes • TG: L06 (pp 41-45)
EXPECTATION	4.01.c.	Describe data in a variety of ways and evaluate how the data help answer the posed question. <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L15-19 (pp 133-170)
COMPETENCY GOAL	NC.5.	Algebra: The learner will analyze patterns and simple mathematical relationships.
OBJECTIVE	5.01.	Sort objects by two attributes; identify and justify the rule used to classify. <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L11-20 (pp 99-176) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • DGL: Symmetry and Shapes • TG: L02 (pp 17-22) • TG: L04-05 (pp 29-40)

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		<ul style="list-style-type: none"> • TG: L09-10 (pp 65-76) • TG: L12 (pp 83-87) • DNC-B: Families and Facts • TG: L09 (pp 97-106)
OBJECTIVE	5.02.	<p>Analyze, correct errors in, extend and translate repeating patterns into different forms using actions, words, and models.</p> <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L01-06 (pp 5-56) • TG: L10 (pp 89-94) • TG: Post Assessment L01-03 (p 4) • TG: Post Assessment L04-06 (p 30) • TG: Unit Pre Assessment (pp xxiv-xxx) • DNC-A: Families and Facts • TG: L01-04 (pp 5-40) • TG: L08-09 (pp 77-96) • TG: L11-12 (pp 105-1180) • TG: L18-19 (pp 173-190)
OBJECTIVE	5.03.	<p>Model, write, and evaluate simple number sentences (equations) to develop an understanding of equality.</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L05-09 (pp 49-96) • TG: Post Assessment L05-12 (pp 119-122) • TG: Post Assessment L13-17 (pp 167-168)
OBJECTIVE	5.04.	<p>Determine and justify the value of the unknown in simple number sentences using models and symbols.</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L05-09 (pp 49-96) • TG: L11-12 (pp 105-118) • TG: Post Assessment L05-12 (pp 119-122) • TG: Post Assessment L13-17 (pp 167-168)
COMPETENCY GOAL	NC.6.	Problem Solving: The learner will solve problems and reason mathematically.
OBJECTIVE	6.01.	Recognize and apply connections among mathematical ideas.
EXPECTATION	6.01.a.	<p>Connect concepts and skills from previous years to current objectives.</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts • TG: L01-20 (pp 5-191)
EXPECTATION	6.01.b.	<p>Connect concepts and skills from multiple strands to solve problems.</p> <ul style="list-style-type: none"> • DGL: Symmetry and Shapes • TG: L17 (pp 121-128) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts

		<ul style="list-style-type: none"> • TG: L01-20 (pp 5-191)
OBJECTIVE	6.02.	<p>Develop fluency in solving single and multi-step problems that arise in mathematics and in other contexts, building mathematical knowledge through problem solving.</p> <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L01-20 (pp 5-176) • TG: Post Assessment L01-03 (p 4) • TG: Post Assessment L04-06 (p 30) • TG: Post Assessment L07-10 (p 60) • TG: Post Assessment L11-13 (p 98) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • TG: Unit Pre Assessment (pp xxiv-xxx) • DGL: Symmetry and Shapes • TG: L01-20 (pp 7-144) • DMB: Up and Down • TG: L01-19 (pp 7-156) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts • TG: L01-20 (pp 5-191)
OBJECTIVE	6.03.	Use reasoning to solve problems.
EXPECTATION	6.03.a.	<p>Understand situations and communicate mathematical problem solving.</p> <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L01-20 (pp 5-176) • TG: Post Assessment L01-03 (p 4) • TG: Post Assessment L04-06 (p 30) • TG: Post Assessment L07-10 (p 60) • TG: Post Assessment L11-13 (p 98) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • TG: Unit Pre Assessment (pp xxiv-xxx) • DGL: Symmetry and Shapes • TG: L01-20 (pp 7-144) • DMB: Up and Down • TG: L01-19 (pp 7-156) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts • TG: L01-20 (pp 5-191)
EXPECTATION	6.03.b.	<p>Make estimates with appropriate ranges.</p> <ul style="list-style-type: none"> • DNC-B: Families and Facts • TG: L01 (pp 5-14)
EXPECTATION	6.03.c.	<p>Reflect, extend and refine thinking.</p> <ul style="list-style-type: none"> • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts

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		<ul style="list-style-type: none"> • TG: L01-20 (pp 5-191)
OBJECTIVE	6.04.	Use the language and symbols of mathematics and appropriate technology to:
EXPECTATION	6.04.a.	<p>Solve problems;</p> <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L01-20 (pp 5-176) • TG: Post Assessment L01-03 (p 4) • TG: Post Assessment L04-06 (p 30) • TG: Post Assessment L07-10 (p 60) • TG: Post Assessment L11-13 (p 98) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • TG: Unit Pre Assessment (pp xxiv-xxx) • DGL: Symmetry and Shapes • TG: L01-20 (pp 7-144) • DMB: Up and Down • TG: L01-19 (pp 7-156) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts • TG: L01-20 (pp 5-191)
EXPECTATION	6.04.b.	<p>Communicate mathematical ideas;</p> <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L01-20 (pp 5-176) • TG: Post Assessment L01-03 (p 4) • TG: Post Assessment L04-06 (p 30) • TG: Post Assessment L07-10 (p 60) • TG: Post Assessment L11-13 (p 98) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • TG: Unit Pre Assessment (pp xxiv-xxx) • DGL: Symmetry and Shapes • TG: L01-20 (pp 7-144) • DMB: Up and Down • TG: L01-19 (pp 7-156) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts • TG: L01-20 (pp 5-191)
EXPECTATION	6.04.c.	<p>Demonstrate understanding of problems and solutions through oral, pictorial, and written explanations.</p> <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L01-20 (pp 5-176) • TG: Post Assessment L01-03 (p 4) • TG: Post Assessment L04-06 (p 30) • TG: Post Assessment L07-10 (p 60) • TG: Post Assessment L11-13 (p 98) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • TG: Unit Pre Assessment (pp xxiv-xxx) • DGL: Symmetry and Shapes

		<ul style="list-style-type: none"> • TG: L01-20 (pp 7-144) • DMB: Up and Down • TG: L01-19 (pp 7-156) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts • TG: L01-20 (pp 5-191)
OBJECTIVE	6.05.	<p>Create and use representations to organize, record and communicate mathematical ideas.</p> <ul style="list-style-type: none"> • DAT: Together and Apart • TG: L01-20 (pp 5-176) • TG: Post Assessment L01-03 (p 4) • TG: Post Assessment L04-06 (p 30) • TG: Post Assessment L07-10 (p 60) • TG: Post Assessment L11-13 (p 98) • TG: Post Assessment L14-16 (p 126) • TG: Post Assessment L17-20 (pp 150-151) • TG: Unit Pre Assessment (pp xxiv-xxx) • DGL: Symmetry and Shapes • TG: L01-20 (pp 7-144) • DMB: Up and Down • TG: L01-19 (pp 7-156) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Families and Facts • TG: L01-22 (pp 5-217) • DNC-B: Families and Facts • TG: L01-20 (pp 5-191)

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Grade 2 - Mathematics

North Carolina Math 2010-2011 Standards

COMPETENCY GOAL	NC.1.	Number and Operations: The learner will develop an understanding of place value and compute with whole numbers.
OBJECTIVE	1.01.	Develop number sense for whole numbers to at least 1,000.
EXPECTATION	1.01.a.	<p>Connect the model, number words, and numbers using a variety of physical models and other representations.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L11-16 (pp 115-173) • TG: Post Assessment L11-16 (pp 174-177) • TG: L07 (pp 61-67) • DNC-B: More and Less • TG: L07 (pp 61-67)
EXPECTATION	1.01.b.	<p>Identify, describe and construct multiple representations.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L11-16 (pp 115-173) • TG: Post Assessment L11-16 (pp 174-177) • TG: L07 (pp 61-67) • DNC-B: More and Less • TG: L07 (pp 61-67)
EXPECTATION	1.01.c.	<p>Compose and decompose numbers (part-part-whole).</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L14 (pp 145-156) • TG: L16 (pp 167-173)
EXPECTATION	1.01.d.	<p>Read and write numbers.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L12 (pp 125-133) • TG: L14 (pp 145-156) • TG: L16 (pp 167-173)
EXPECTATION	1.01.e.	<p>Compare and order (including the use of symbolic notation).</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L13 (pp 135-144) • TG: L15 (pp 157-165) • TG: Post Assessment L11-16 (pp 174-177)
EXPECTATION	1.01.f.	<p>Use a variety of models to build understanding of place value.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L11-16 (pp 115-173) • TG: Post Assessment L11-16 (pp 174-177) • TG: L07 (pp 61-67) • DNC-B: More and Less • TG: L05 (pp 45-50) • TG: L07 (pp 61-67)

EXPECTATION	1.01.g.	<p>Use 10's and 100's as units for counting, increasing and decreasing quantities by 10's and 100's from any given number.</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L08 (pp 63-72) • TG: L10-11 (pp 81-94) • DNC-A: More and Less • TG: L11-12 (pp 115-133) • TG: L17 (pp 183-191) • DNC-B: More and Less • TG: L05 (pp 45-50) • TG: L07 (pp 61-67)
OBJECTIVE	1.02.	<p>Develop fluency with recall of addition facts (sums to18) and the related subtraction facts.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L01-10 (pp 5-105) • TG: L13 (pp 135-144) • TG: L15 (pp 157-165) • TG: L17 (pp 183-191) • TG: L20-22 (pp 213-236) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109) • TG: Post Assessment L17-22 (pp 237-241) • DNC-B: More and Less • TG: L04-06 (pp 37-59) • TG: L11-12 (pp 101-114) • TG: L15 (pp 129-135)
OBJECTIVE	1.03.	<p>Solve problems involving multi-digit addition and subtraction situations.</p>
EXPECTATION	1.03.a.	<p>Understand and use properties of addition (i.e. commutative, associative, and identity) and the inverse relationship between addition and subtraction.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L06-10 (pp 59-105)
EXPECTATION	1.03.b.	<p>Explore multiple ways of solving multi-digit problems.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L01-10 (pp 5-105) • TG: L17-22 (pp 183-236) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109) • TG: Post Assessment L17-22 (pp 237-241) • DNC-B: More and Less • TG: L04-16 (pp 37-142) • TG: Post Assessment L04-10 (pp 94-96)
EXPECTATION	1.03.c.	<p>Develop efficient strategies for computing.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L01-10 (pp 5-105) • TG: L13 (pp 135-144) • TG: L15 (pp 157-165) • TG: L17-22 (pp 183-236) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109)

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		<ul style="list-style-type: none"> • TG: Post Assessment L17-22 (pp 237-241) • DNC-B: More and Less • TG: L04-12 (pp 37-114) • TG: L15-16 (pp 129-142) • TG: Post Assessment L04-10 (pp 94-96)
EXPECTATION	1.03.d.	<p>Estimate sums and differences and justify the reasonableness of solutions in meaningful contexts.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L13 (pp 135-144) • DNC-B: More and Less • TG: L11 (pp 101-107) • TG: L14 (pp 121-128)
OBJECTIVE	1.04.	<p>Create, model, and solve problems that use fair shares (between two, three, or four).</p> <ul style="list-style-type: none"> • DNC-B: More and Less • TG: L15-17 (pp 129-135)
COMPETENCY GOAL	NC.2.	Measurement: The learner will apply the processes and components of measurement using nonstandard and standard units.
OBJECTIVE	2.01.	Use non-standard units to develop an understanding of processes for measuring (linear, mass, and capacity) recognizing that:
EXPECTATION	2.01.a.	<p>The type of unit used to measure depends on the attribute being measured,</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L01-02 (pp 7-20) • TG: L06 (pp 43-48) • TG: L19 (pp 161-166)
EXPECTATION	2.01.b.	<p>Larger units can be subdivided into equivalent units (partitioning),</p> <ul style="list-style-type: none"> • DGL: Rows and Columns • TG: L01-03 (pp 7-31) • TG: L17-19 (pp 141-161)
EXPECTATION	2.01.c.	<p>The same unit can be repeated to determine the measure (iteration), and</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L05 (p 42)
EXPECTATION	2.01.d.	<p>The relationship between the size of the unit and the number of units needed (compensatory principle).</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L04-06 (pp 29-48) • TG: L12 (pp 101-108)
OBJECTIVE	2.02.	<p>Select and use appropriate non-standard units and standard units (inches and feet) to estimate length, develop and use personal benchmarks (referents) for length, and measure length to the nearest whole unit.</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L16-20 (pp 141-188)

		<ul style="list-style-type: none"> • DMB: Large and Small • TG: L01-06 (pp 7-48) • TG: Post Assessment L01-07 (p 5) • TG: Unit Pre Assessment (pp xxiii-xxviii)
OBJECTIVE	2.03.	<p>Develop a sense of intervals of time.</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L13-15 (pp 109-134)
OBJECTIVE	2.04.	<p>Recognize coins (penny, nickel, dime, quarter) and compare the value of each; create sets and find the value of a group of coins up to 99 cents.</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L08-11 (pp 63-94) • TG: Post Assessment L08-11 (pp 60-61) • TG: Unit Pre Assessment (pp xxiii-xxviii)
COMPETENCY GOAL	NC.3.	Geometry: The learner will recognize and use the basic properties of basic two- and three-dimensional figures.
OBJECTIVE	3.01.	<p>Describe attributes and construct three-dimensional figures; relate the shapes of the faces of three-dimensional objects to two-dimensional figures.</p> <ul style="list-style-type: none"> • DGL: Rows and Columns • TG: L02-06 (pp 17-53) • TG: L12 (pp 95-100)
OBJECTIVE	3.02.	Describe, sort, and create congruent figures.
EXPECTATION	3.02.a.	<p>Determine whether figures are congruent.</p> <ul style="list-style-type: none"> • DGL: Rows and Columns • TG: L10 (pp 83-88) • TG: L12 (pp 95-100) • DNC-A: More and Less • TG: L17 (pp 183-191)
EXPECTATION	3.02.b.	<p>Recognize congruency in figures with different orientations.</p> <ul style="list-style-type: none"> • DGL: Rows and Columns • TG: L12 (pp 95-100)
COMPETENCY GOAL	NC.4.	Data Analysis and Probability: The learner will demonstrate an understanding of and apply the statistical process.
OBJECTIVE	4.01.	Use the processes of statistical investigation.
EXPECTATION	4.01.a.	<p>Pose questions and collect data to answer questions.</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L11-19 (pp 99-182) • DGL: Rows and Columns • TG: L02 (pp 17-23) • TG: L04 (pp 33-38) • TG: L05 (pp 39-46) • DNC-B: More and Less

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		<ul style="list-style-type: none"> • TG: L18-20 (pp 155-172) • TG: Post Assessment L18-20 (p 173)
EXPECTATION	4.01.b.	<p>Organize, represent and compare data using various representations including Venn diagrams, pictographs, tallies and line plots.</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L11-20 (pp 99-188) • TG: Post Assessment L11-13 (pp 96-97) • TG: Unit Pre Assessment (pp xxiv-xxxiii) • DNC-B: More and Less • TG: L18-19 (pp 155-165)
EXPECTATION	4.01.c.	<p>Describe parts of data using counting concepts of grouping and comparing to illustrate the differences between values and frequencies.</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L12 (pp 101-108)
EXPECTATION	4.01.d.	<p>Identify patterns and trends to make decisions using data.</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L12 (pp 101-108)
COMPETENCY GOAL	NC.5.	Algebra: The learner will demonstrate an understanding of equality and number sequences.
OBJECTIVE	5.01.	<p>Represent, describe, find missing terms, and extend nonnumeric repeating and growing patterns.</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L02-05 (pp 11-44) • TG: L10 (pp 81-92) • TG: Post Assessment L01-04 (p 4) • TG: Post Assessment L05-07 (p 36) • TG: Post Assessment L08-10 (pp 60-62) • TG: Unit Pre Assessment (pp xxiv-xxxiii) • DGL: Rows and Columns • TG: L14 (pp 115-122)
OBJECTIVE	5.02.	Develop fluency with arithmetic sequences to build knowledge of:
EXPECTATION	5.02.a.	<p>Odd and even numbers;</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L05 (pp 37-44) • DNC-A: More and Less • TG: L02-03 (pp 13 -30)
EXPECTATION	5.02.b.	<p>Number sequences that grow by 2's, 5's, 10's;</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L06-09 (pp 45-80) • DMB: Large and Small • TG: L08 (pp 63-72) • TG: L10 (pp 81-86) • TG: L11 (pp 87-94)

		<ul style="list-style-type: none"> • DNC-A: More and Less • TG: L11-12 (pp 115-133) • TG: L17 (pp 183-191) • DNC-B: More and Less • TG: L05 (pp 45-50) • TG: L07 (pp 61-67) • TG: L15 (pp 129-135)
EXPECTATION	5.02.c.	<p>Number sequences that increase and decrease by 10's from any given number.</p> <ul style="list-style-type: none"> • DMB: Large and Small • TG: L08 (pp 63-72) • TG: L10 (pp 81-86) • TG: L11 (pp 87-94) • DNC-A: More and Less • TG: L11-12 (pp 115-133) • TG: L17 (pp 183-191) • DNC-B: More and Less • TG: L05 (pp 45-50) • TG: L07 (pp 61-67)
OBJECTIVE	5.03.	Model, write and evaluate addition and subtraction number sentences (equations).
EXPECTATION	5.03.a.	<p>Represent a problem including using symbols to represent unknown quantities.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L10 (pp 97-105) • TG: L18-19 (pp 193-211) • TG: L21-22 (pp 221-236)
EXPECTATION	5.03.b.	<p>Demonstrate an understanding of equality to find the value of unknown quantity.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L01-10 (pp 5-105) • TG: L13 (pp 135-144) • TG: L15 (pp 157-165) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109) • DNC-B: More and Less • TG: L04 (pp 37-44) • TG: L08 (pp 69-77) • TG: L10 (pp 89-93)
COMPETENCY GOAL	NC.6.	Problem Solving and Reasoning: The student will solve problems and reason mathematically.
OBJECTIVE	6.01.	Recognize and apply connections among mathematical ideas.
EXPECTATION	6.01.a.	<p>Connect concepts and skills from previous years to current objectives.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L01-22 (pp 5-236) • DNC-B: More and Less • TG: L01-20 (pp 5-172)
EXPECTATION	6.01.b.	<p>Connect concepts and skills from multiple strands to solve problems.</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting

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		<ul style="list-style-type: none"> • TG: L01-20 (pp 5-188) • TG: Post Assessment L01-04 (p 4) • TG: Post Assessment L05-07 (p 36) • TG: Post Assessment L08-10 (pp 60-62) • TG: Post Assessment L11-13 (pp 96-97) • TG: Post Assessment L14-16 (p 128) • TG: Post Assessment L17-20 (pp 156-157) • TG: Unit Pre Assessment (pp xxiv-xxxiii)
OBJECTIVE	6.02.	<p>Develop fluency in solving single and multi-step problems that arise in mathematics and in other contexts, building mathematical knowledge through problem solving.</p> <ul style="list-style-type: none"> • DGL: Rows and Columns • TG: L01-20 (pp 7-166) • DMB: Large and Small • TG: L01-12 (pp 7-108) • TG: L15-16 (pp 125-146) • TG: L18-19 (pp 155-166) • TG: Post Assessment L08-11 (pp 60-61) • TG: Post Assessment L12-15 (pp 98-99) • TG: Post Assessment L16-20 (pp 138-139) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: More and Less • TG: L01-22 (pp 5-236) • DNC-B: More and Less • TG: L01-20 (pp 5-172)
OBJECTIVE	6.03.	Use reasoning to solve problems.
EXPECTATION	6.03.a.	<p>Understand situations and communicate mathematical problem solving.</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L01-20 (pp 5-188) • TG: Post Assessment L01-04 (p 4) • TG: Post Assessment L05-07 (p 36) • TG: Post Assessment L08-10 (pp 60-62) • TG: Post Assessment L11-13 (pp 96-97) • TG: Post Assessment L14-16 (p 128) • TG: Post Assessment L17-20 (pp 156-157) • TG: Unit Pre Assessment (pp xxiv-xxxiii) • DGL: Rows and Columns • TG: L01-20 (pp 7-166) • TG: Post Assessment L01-06 (p 5) • TG: Post Assessment L07-12 (pp 59-64) • TG: Post Assessment L13-16 (pp 104-105) • TG: Post Assessment L17-20 (p 140) • TG: Unit Pre Assessment (pp xxiii-xxix) • DMB: Large and Small • TG: L01-20 (pp 7-172) • TG: Post Assessment L08-11 (pp 60-61) • TG: Post Assessment L12-15 (pp 98-99) • TG: Post Assessment L16-20 (pp 138-139) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: More and Less • TG: L01-22 (pp 5-236) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109) • TG: Post Assessment L11-16 (pp 174-177) • TG: Post Assessment L17-22 (pp 237-241)

		<ul style="list-style-type: none"> • DNC-B: More and Less • TG: L01-20 (pp 5-172) • TG: Post Assessment L01-03 (p 32) • TG: Post Assessment L04-10 (pp 94-96) • TG: Post Assessment L11-17 (p 150) • TG: Post Assessment L18-20 (p 173)
EXPECTATION	6.03.b.	<p>Make estimates with appropriate ranges.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L11-12 (pp 115-133)
EXPECTATION	6.03.c.	<p>Reflect, extend and refine thinking.</p> <ul style="list-style-type: none"> • DNC-A: More and Less • TG: L01-10 (pp 5-105)
OBJECTIVE	6.04.	Use the language and symbols of mathematics and appropriate technology to:
EXPECTATION	6.04.a.	<p>Solve problems;</p> <ul style="list-style-type: none"> • DGL: Rows and Columns • TG: L01-20 (pp 7-166) • DMB: Large and Small • TG: L01-12 (pp 7-108) • TG: L15-16 (pp 125-146) • TG: L18-19 (pp 155-166) • TG: Post Assessment L08-11 (pp 60-61) • TG: Post Assessment L12-15 (pp 98-99) • TG: Post Assessment L16-20 (pp 138-139) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: More and Less • TG: L01-22 (pp 5-236) • DNC-B: More and Less • TG: L01-20 (pp 5-172)
EXPECTATION	6.04.b.	<p>Communicate mathematical ideas;</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L01-20 (pp 5-188) • TG: Post Assessment L01-04 (p 4) • TG: Post Assessment L05-07 (p 36) • TG: Post Assessment L08-10 (pp 60-62) • TG: Post Assessment L11-13 (pp 96-97) • TG: Post Assessment L14-16 (p 128) • TG: Post Assessment L17-20 (pp 156-157) • TG: Unit Pre Assessment (pp xxiv-xxxiii) • DGL: Rows and Columns • TG: L01-20 (pp 7-166) • TG: Post Assessment L01-06 (p 5) • TG: Post Assessment L07-12 (pp 59-64) • TG: Post Assessment L13-16 (pp 104-105) • TG: Post Assessment L17-20 (p 140) • TG: Unit Pre Assessment (pp xxiii-xxix) • DMB: Large and Small • TG: L01-20 (pp 7-172) • TG: Post Assessment L08-11 (pp 60-61) • TG: Post Assessment L12-15 (pp 98-99)

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		<ul style="list-style-type: none"> • TG: Post Assessment L16-20 (pp 138-139) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: More and Less • TG: L01-22 (pp 5-236) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109) • TG: Post Assessment L11-16 (pp 174-177) • TG: Post Assessment L17-22 (pp 237-241) • DNC-B: More and Less • TG: L01-20 (pp 5-172) • TG: Post Assessment L01-03 (p 32) • TG: Post Assessment L04-10 (pp 94-96) • TG: Post Assessment L11-17 (p 150) • TG: Post Assessment L18-20 (p 173)
EXPECTATION	6.04.c.	<p>Demonstrate understanding of problems and solutions through oral, pictorial, and written explanations.</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L01-20 (pp 5-188) • TG: Post Assessment L01-04 (p 4) • TG: Post Assessment L05-07 (p 36) • TG: Post Assessment L08-10 (pp 60-62) • TG: Post Assessment L11-13 (pp 96-97) • TG: Post Assessment L14-16 (p 128) • TG: Post Assessment L17-20 (pp 156-157) • TG: Unit Pre Assessment (pp xxiv-xxxiii) • DGL: Rows and Columns • TG: L01-20 (pp 7-166) • TG: Post Assessment L01-06 (p 5) • TG: Post Assessment L07-12 (pp 59-64) • TG: Post Assessment L13-16 (pp 104-105) • TG: Post Assessment L17-20 (p 140) • TG: Unit Pre Assessment (pp xxiii-xxix) • DMB: Large and Small • TG: L01-20 (pp 7-172) • TG: Post Assessment L08-11 (pp 60-61) • TG: Post Assessment L12-15 (pp 98-99) • TG: Post Assessment L16-20 (pp 138-139) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: More and Less • TG: L01-22 (pp 5-236) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109) • TG: Post Assessment L11-16 (pp 174-177) • TG: Post Assessment L17-22 (pp 237-241) • DNC-B: More and Less • TG: L01-20 (pp 5-172) • TG: Post Assessment L01-03 (p 32) • TG: Post Assessment L04-10 (pp 94-96) • TG: Post Assessment L11-17 (p 150) • TG: Post Assessment L18-20 (p 173)
OBJECTIVE	6.05.	<p>Create and use representations to organize, record and communicate mathematical ideas.</p> <ul style="list-style-type: none"> • DAT: Collecting and Sorting • TG: L01-20 (pp 5-188) • TG: Post Assessment L01-04 (p 4) • TG: Post Assessment L05-07 (p 36) • TG: Post Assessment L08-10 (pp 60-62)

- TG: Post Assessment L11-13 (pp 96-97)
- TG: Post Assessment L14-16 (p 128)
- TG: Post Assessment L17-20 (pp 156-157)
- TG: Unit Pre Assessment (pp xxiv-xxxiii)
- **DGL: Rows and Columns**
- TG: L01-20 (pp 7-166)
- TG: Post Assessment L01-06 (p 5)
- TG: Post Assessment L07-12 (pp 59-64)
- TG: Post Assessment L13-16 (pp 104-105)
- TG: Post Assessment L17-20 (p 140)
- TG: Unit Pre Assessment (pp xxiii-xxix)
- **DMB: Large and Small**
- TG: L01-20 (pp 7-172)
- TG: Post Assessment L08-11 (pp 60-61)
- TG: Post Assessment L12-15 (pp 98-99)
- TG: Post Assessment L16-20 (pp 138-139)
- TG: Unit Pre Assessment (pp xxiii-xxviii)
- **DNC-A: More and Less**
- TG: L01-22 (pp 5-236)
- TG: Post Assessment L01-05 (pp 52-54)
- TG: Post Assessment L06-10 (pp 106-109)
- TG: Post Assessment L11-16 (pp 174-177)
- TG: Post Assessment L17-22 (pp 237-241)
- **DNC-B: More and Less**
- TG: L01-20 (pp 5-172)
- TG: Post Assessment L01-03 (p 32)
- TG: Post Assessment L04-10 (pp 94-96)
- TG: Post Assessment L11-17 (p 150)
- TG: Post Assessment L18-20 (p 173)

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Grade 3 - Mathematics

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COMPETENCY GOAL	NC.1.	Number and Operations: The learner will demonstrate an understanding of fractions and whole number operations.
OBJECTIVE	1.01.	Develop number sense for rational numbers to at least 10,000.
EXPECTATION	1.01.a.	Demonstrate multiple ways to represent numbers using models, words and symbolic representations. <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L06-07 (pp 61-76) • TG: L09-18 (pp 91-190) • TG: L25-28 (pp 251-285) • TG: Post Assessment L09-14 (pp 144-145) • DNC-B: Ordering and Arranging • TG: L05-07 (pp 47-71)
EXPECTATION	1.01.b.	Identify the place and the value of a given digit in order to determine the magnitude of the number. <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L09-14 (pp 91-143) • TG: Post Assessment L09-14 (pp 144-145) • DNC-B: Ordering and Arranging • TG: L06 (pp 57-64)
EXPECTATION	1.01.c.	Compare and order (including the use of symbolic notation). <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L13 (pp 127-136) • TG: L14 (pp 137-143) • TG: Post Assessment L09-14 (pp 144-145)
OBJECTIVE	1.02.	Develop understanding of the part-whole meaning of fractions as sharing equally with area, set, region, and length models.
EXPECTATION	1.02.a.	Use models and benchmarks (0, $\frac{1}{2}$, 1) to compare and order fractions including common equivalents. <ul style="list-style-type: none"> • DNC-B: Ordering and Arranging • TG: L02-04 (pp 13-39)
EXPECTATION	1.02.b.	Model and describe common equivalents among: halves, fourths, and eighths; thirds and sixths. <ul style="list-style-type: none"> • DNC-B: Ordering and Arranging • TG: L04 (pp 31-39) • TG: Post Assessment L01-04 (pp 40-41)
OBJECTIVE	1.03.	Develop fluency and flexibility with multi-digit addition and subtraction.
EXPECTATION	1.03.a.	Use strategies for adding and subtracting numbers (including but not limited to standard algorithms) <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L01-05 (pp 5-60) • TG: L08 (pp 77-83) • TG: L15-24 (pp 151-243) • TG: Post Assessment L01-08 (pp 84-86)

		<ul style="list-style-type: none"> TG: Post Assessment L15-24 (pp 244-246)
EXPECTATION	1.03.b.	<p>Estimate sums and differences and justify the reasonableness of solutions in meaningful contexts.</p> <ul style="list-style-type: none"> DNC-A: Ordering and Arranging TG: L16 (pp 161-170)
EXPECTATION	1.03.c.	<p>Analyze the relationships between operations.</p> <ul style="list-style-type: none"> DNC-A: Ordering and Arranging TG: L02-03 (pp 19-42) TG: Post Assessment L01-08 (pp 84-86)
OBJECTIVE	1.04.	<p>Demonstrate conceptual understanding of the meaning of multiplication and division through multiple models.</p>
EXPECTATION	1.04.a.	<p>Make connections about the multiples and factors of a given number.</p> <ul style="list-style-type: none"> DNC-A: Ordering and Arranging TG: L25-30 (pp 251-301)
EXPECTATION	1.04.b.	<p>Analyze the relationship between multiplication and division.</p> <ul style="list-style-type: none"> DNC-A: Ordering and Arranging TG: L28 (pp 277-285)
OBJECTIVE	1.05.	<p>Develop fluency with multiplication facts for 1's, 2's, 5's, 10's, 0's and strategies for 3's, 4's, 6's, 7's, 8's, 9's; and related division facts.</p> <ul style="list-style-type: none"> DNC-A: Ordering and Arranging TG: L06-08 (pp 61-83) TG: L25-30 (pp 251-301) TG: Post Assessment L01-08 (pp 84-86)
COMPETENCY GOAL	NC.2.	<p>Measurement: The learner will apply the processes and components of measurement using customary measurement units.</p>
OBJECTIVE	2.01.	<p>Develop an understanding of and use the processes for measuring with customary units of measurement (linear, weight, capacity, and temperature) recognizing that:</p>
EXPECTATION	2.01.a.	<p>The type of unit used to measure depends on the attribute being measured,</p> <ul style="list-style-type: none"> DMB: Scales and Balances TG: L01-02 (pp 7-24) TG: L05-06 (pp 41-54) TG: L11 (pp 89-96) TG: L15-20 (pp 127-174)
EXPECTATION	2.01.b.	<p>Larger units can be subdivided into equivalent units (partitioning),</p> <ul style="list-style-type: none"> DMB: Scales and Balances TG: L01-02 (pp 7-24) TG: L05-06 (pp 41-54) TG: L11 (pp 89-96) TG: L15-20 (pp 127-174)

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EXPECTATION	2.01.c.	Two objects can be compared in terms of a measurable quality using a third object (transitivity), <ul style="list-style-type: none"> • DMB: Scales and Balances • TG: L01 (pp 7-16) • TG: L04 (pp 35-40) • TG: L06 (pp 47-54) • TG: L15-17 (pp 127-154)
EXPECTATION	2.01.d.	The same unit can be repeated to determine the measure (iteration), and <ul style="list-style-type: none"> • DMB: Scales and Balances • TG: L01-02 (pp 7-24) • TG: L05-06 (pp 41-54) • TG: L11 (pp 89-96) • TG: L15-20 (pp 127-174)
EXPECTATION	2.01.e.	The relationship between the size of the unit and the number of units needed (compensatory principle). <ul style="list-style-type: none"> • DMB: Scales and Balances • TG: L01-02 (pp 7-24) • TG: L05-06 (pp 41-54) • TG: L11 (pp 89-96) • TG: L15-20 (pp 127-174)
OBJECTIVE	2.02.	Develop and use personal benchmarks (referents) for customary measurements to estimate length, weight, capacity, time, and temperature. <ul style="list-style-type: none"> • DMB: Scales and Balances • TG: L01 (pp 7-16) • TG: L03-05 (pp 25-46) • TG: L17 (pp 149-154)
OBJECTIVE	2.03.	Select attributes and appropriate standard units and tools (customary) to estimate and measure length, weight, capacity, temperature, and time to the minute. <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L20 (pp 217-222) • DMB: Scales and Balances • TG: L02-03 (pp 17-34) • TG: L05 (pp 41-46) • TG: L10 (pp 81-88) • TG: L12-13 (pp 103-116) • TG: L16 (pp 141-148) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L12-15 (pp 100-101) • TG: Post Assessment L16-20 (p 139) • TG: Unit Pre Assessment (pp xxiii-xxvi)
OBJECTIVE	2.04.	Determine the amount of money needed to make change (up to a dollar) using various strategies. <ul style="list-style-type: none"> • DNC-B: Ordering and Arranging • TG: L11-12 (pp 105-119)
COMPETENCY GOAL	NC.3.	Geometry: The learner will use the rectangular coordinate system and the basic geometric properties of two-dimensional shapes.

OBJECTIVE	3.01.	Describe, analyze, compare and classify two-dimensional shapes by properties including sides and angles (acute, obtuse, right). <ul style="list-style-type: none"> • DGL: Shapes and Paths • TG: L05-09 (pp 47-97) • TG: Post Assessment L05-07 (pp 44-45) • TG: Unit Pre Assessment (pp xxiv-xxiii) • DMB: Scales and Balances • TG: L03 (pp 25-34) • TG: L20 (pp 169-174)
OBJECTIVE	3.02.	Use rectangular coordinate system to:
EXPECTATION	3.02.a.	Graph and identify points with whole number or letter coordinates, <ul style="list-style-type: none"> • DGL: Shapes and Paths • TG: L20 (pp 195-201) • TG: Post Assessment L16-20 (pp 162-163) • TG: Unit Pre Assessment (pp xxiv-xxiii)
EXPECTATION	3.02.b.	Describe possible paths between given points on the plane, <ul style="list-style-type: none"> • DGL: Shapes and Paths • TG: L18-20 (pp 181-201)
EXPECTATION	3.02.c.	Identify parallel and perpendicular lines, and <ul style="list-style-type: none"> • DGL: Shapes and Paths • TG: L06-07 (pp 59-73)
COMPETENCY GOAL	NC.4.	Data Analysis and Probability: The learner will use and understand statistical processes and simple probability concepts.
OBJECTIVE	4.01.	Use the processes of statistical investigation.
EXPECTATION	4.01.a.	Pose questions that involve collecting categorical and numerical data. <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L01-02 (pp 7-28) • TG: L13 (pp 149-156) • TG: L15-17 (pp 171-194) • TG: L20 (pp 217-222) • DNC-B: Ordering and Arranging • TG: L14-17 (pp 139-164)
EXPECTATION	4.01.b.	Design investigations to answer questions using observations, surveys and experiments. <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L16-17 (pp 177-194)
EXPECTATION	4.01.c.	Collect, organize, represent and analyze data using various representations including tables and bar graphs. <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L01-02 (pp 7-28) • TG: L13 (pp 149-156) • TG: L15-17 (pp 171-194)

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		<ul style="list-style-type: none"> • TG: L20 (pp 217-222) • DNC-B: Ordering and Arranging • TG: L14-17 (pp 139-164)
EXPECTATION	4.01.d.	Describe the shape of set of data and important features, including concepts of mode and variability (minimum and maximum values and range). <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L13-14 (pp 149-164) • TG: Post Assessment L13-14 (pp 146-147) • TG: Unit Pre Assessment (pp xxiv-xxxviii)
OBJECTIVE	4.02.	Understand situations involving simple probability.
EXPECTATION	4.02.a.	Judge the probability of events as being (certain, likely, equally likely, unlikely, possible, or impossible) to occur. <ul style="list-style-type: none"> • DNC-B: Ordering and Arranging • TG: L13-17 (pp 127-164)
EXPECTATION	4.02.b.	Conduct simple probability experiments. <ul style="list-style-type: none"> • DNC-B: Ordering and Arranging • TG: L13-17 (pp 127-164)
EXPECTATION	4.02.c.	Describe results using pictures and words, and make predictions. <ul style="list-style-type: none"> • DNC-B: Ordering and Arranging • TG: L13-17 (pp 127-164) • TG: Post Assessment L13-17 (p 165)
COMPETENCY GOAL	NC.5.	Algebra: The learner will explore functional relationships and use variables.
OBJECTIVE	5.01.	Analyze numeric and nonnumeric growing patterns to explore functional relationships. <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L03-09 (pp 35-112) • TG: L12 (pp 135-142) • TG: Post Assessment L03-05 (pp 32-34) • TG: Post Assessment L06-08 (pp 66-67) • TG: Post Assessment L09-12 (pp 100-101) • TG: Unit Pre Assessment (pp xxiv-xxxviii) • DNC-A: Ordering and Arranging • TG: L09 (pp 91-100)
OBJECTIVE	5.02.	Model, write and evaluate simple multiplication and division equations.
EXPECTATION	5.02.a.	Represent a problem including using variables to represent unknown quantities. <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L25 (pp 251-258)
EXPECTATION	5.02.b.	Demonstrate an understanding of equality.

		<ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L25 (pp 251-258)
EXPECTATION	5.02.c.	<p>Find the value of variables.</p> <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L25 (pp 251-258)
OBJECTIVE	5.03.	<p>Demonstrate an understanding of the commutative and identity properties for addition and multiplication.</p> <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L1-16 (pp 151-170)
COMPETENCY GOAL	NC.6.	Problem Solving and Reasoning: The student will solve problems and reason mathematically.
OBJECTIVE	6.01.	Recognize and apply connections among mathematical ideas.
EXPECTATION	6.01.a.	<p>Connect concepts and skills from previous years to current objectives.</p> <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L01-20 (pp 7-222) • TG: Post Assessment L03-05 (pp 32-34) • TG: Post Assessment L06-08 (pp 66-67) • TG: Post Assessment L09-12 (pp 100-101) • TG: Post Assessment L13-14 (pp 146-147) • TG: Post Assessment L15-17 (pp 168-169) • TG: Post Assessment L18-20 (pp 198-199) • DGL: Shapes and Paths • TG: L02-20 (pp 15-201) • DMB: Scales and Balances • TG: L01-19 (pp 7-168) • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • DNC-B: Ordering and Arranging • TG: L01-20 (pp 5-192)
EXPECTATION	6.01.b.	<p>Connect concepts and skills from multiple strands to solve problems.</p> <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L03-17 (pp 35-194) • TG: L20 (pp 217-222) • TG: Post Assessment L01-02 (pp 4-5) • TG: Post Assessment L03-05 (pp 32-34) • TG: Post Assessment L06-08 (pp 66-67) • TG: Post Assessment L09-12 (pp 100-101) • TG: Post Assessment L13-14 (pp 146-147) • TG: Post Assessment L15-17 (pp 168-169) • TG: Post Assessment L18-20 (pp 198-199) • TG: Unit Pre Assessment (pp xxiv-xxxviii) • DGL: Shapes and Paths • TG: L01-20 (pp 7-201) • TG: Post Assessment L01-04 (pp 4-5) • TG: Post Assessment L05-07 (pp 44-45) • TG: Post Assessment L08-11 (pp 79-80) • TG: Post Assessment L12-15 (pp 118-119) • TG: Post Assessment L16-20 (pp 162-163)

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		<ul style="list-style-type: none"> • TG: Unit Pre Assessment (pp xxiv-xxiii) • DMB: Scales and Balances • TG: L01 -20(pp 7-174) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-11 (p 58) • TG: Post Assessment L12-15 (pp 100-101) • TG: Post Assessment L16-20 (p 139) • TG: Unit Pre Assessment (pp xxiii-xxvi) • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • TG: Post Assessment L01-08 (pp 84-86) • TG: Post Assessment L09-14 (pp 144-145) • TG: Post Assessment L15-24 (pp 244-246) • TG: Post Assessment L25-30 (pp 302-304) • DNC-B: Ordering and Arranging • TG: L01-20 (pp 5-192) • TG: Post Assessment L01-04 (pp 40-41) • TG: Post Assessment L05-07 (pp 72-73) • TG: Post Assessment L08-12 (pp 120-121) • TG: Post Assessment L13-17 (p 165) • TG: Post Assessment L18-20 (p 193)
OBJECTIVE	6.02.	<p>Develop fluency in solving single and multi-step problems that arise in mathematics and in other contexts, building mathematical knowledge through problem solving.</p> <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • TG: Post Assessment L25-30 (pp 302-304) • DNC-B: Ordering and Arranging • TG: L01-20 (pp 5-192)
OBJECTIVE	6.03.	Use reasoning to solve problems.
EXPECTATION	6.03.a.	<p>Understand situations and communicate mathematical problem solving.</p> <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: Post Assessment L01-02 (pp 4-5) • TG: Post Assessment L06-08 (pp 66-67) • TG: Post Assessment L09-12 (pp 100-101) • TG: Post Assessment L13-14 (pp 146-147) • TG: Post Assessment L15-17 (pp 168-169) • TG: Post Assessment L18-20 (pp 198-199) • TG: Unit Pre Assessment (pp xxiv-xxxviii) • DGL: Shapes and Paths • TG: L02-20 (pp 15-201) • DMB: Scales and Balances • TG: L01-19 (pp 7-168) • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • DNC-B: Ordering and Arranging • TG: L01-20 (pp 5-192)
EXPECTATION	6.03.b.	<p>Make estimates with appropriate ranges.</p> <ul style="list-style-type: none"> • DMB: Scales and Balances • TG: L20 (pp 169-174)

EXPECTATION	6.03.c.	<p>Reflect, extend and refine thinking.</p> <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L03-17 (pp 35-194) • TG: L20 (pp 217-222) • TG: Post Assessment L01-02 (pp 4-5) • TG: Post Assessment L03-05 (pp 32-34) • TG: Post Assessment L06-08 (pp 66-67) • TG: Post Assessment L09-12 (pp 100-101) • TG: Post Assessment L13-14 (pp 146-147) • TG: Post Assessment L15-17 (pp 168-169) • TG: Post Assessment L18-20 (pp 198-199) • TG: Unit Pre Assessment (pp xxiv-xxxviii) • DGL: Shapes and Paths • TG: L01-20 (pp 7-201) • TG: Post Assessment L01-04 (pp 4-5) • TG: Post Assessment L05-07 (pp 44-45) • TG: Post Assessment L08-11 (pp 79-80) • TG: Post Assessment L12-15 (pp 118-119) • TG: Post Assessment L16-20 (pp 162-163) • TG: Unit Pre Assessment (pp xxiv-xxiii) • DMB: Scales and Balances • TG: L01 -20(pp 7-174) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-11 (p 58) • TG: Post Assessment L12-15 (pp 100-101) • TG: Post Assessment L16-20 (p 139) • TG: Unit Pre Assessment (pp xxiii-xxvi) • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • TG: Post Assessment L01-08 (pp 84-86) • TG: Post Assessment L09-14 (pp 144-145) • TG: Post Assessment L15-24 (pp 244-246) • TG: Post Assessment L25-30 (pp 302-304) • DNC-B: Ordering and Arranging • TG: L01-20 (pp 5-192) • TG: Post Assessment L01-04 (pp 40-41) • TG: Post Assessment L05-07 (pp 72-73) • TG: Post Assessment L08-12 (pp 120-121) • TG: Post Assessment L13-17 (p 165) • TG: Post Assessment L18-20 (p 193)
OBJECTIVE	6.04.	Use the language and symbols of mathematics and appropriate technology to:
EXPECTATION	6.04.a.	<p>Solve problems;</p> <ul style="list-style-type: none"> • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • DNC-B: Ordering and Arranging • TG: L01-20 (pp 5-192)
EXPECTATION	6.04.b.	<p>Communicate mathematical ideas;</p> <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: Post Assessment L01-02 (pp 4-5) • TG: Post Assessment L06-08 (pp 66-67) • TG: Post Assessment L09-12 (pp 100-101) • TG: Post Assessment L13-14 (pp 146-147) • TG: Post Assessment L15-17 (pp 168-169)

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		<ul style="list-style-type: none"> • TG: Post Assessment L18-20 (pp 198-199) • TG: Unit Pre Assessment (pp xxiv-xxxviii) • DGL: Shapes and Paths • TG: L02-20 (pp 15-201) • DMB: Scales and Balances • TG: L01-19 (pp 7-168) • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • DNC-B: Ordering and Arranging • TG: L01-20 (pp 5-192)
<p>EXPECTATION</p>	<p>6.04.c.</p>	<p>Demonstrate understanding of problems and solutions through oral, pictorial, and written explanations.</p> <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L01-19 (pp 7-216) • TG: Post Assessment L09-12 (pp 100-101) • TG: Post Assessment L13-14 (pp 146-147) • TG: Post Assessment L18-20 (pp 198-199) • DGL: Shapes and Paths • TG: L01-20(pp 7-201) • DMB: Scales and Balances • TG: L01-19 (pp 7-168) • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • DNC-B: Ordering and Arranging • TG: L01-20 (pp 5-192)
<p>OBJECTIVE</p>	<p>6.05.</p>	<p>Create and use representations to organize, record and communicate mathematical ideas.</p> <ul style="list-style-type: none"> • DAT: Plotting and Growing • TG: L03-17 (pp 35-194) • TG: L20 (pp 217-222) • TG: Post Assessment L01-02 (pp 4-5) • TG: Post Assessment L03-05 (pp 32-34) • TG: Post Assessment L06-08 (pp 66-67) • TG: Post Assessment L09-12 (pp 100-101) • TG: Post Assessment L13-14 (pp 146-147) • TG: Post Assessment L15-17 (pp 168-169) • TG: Post Assessment L18-20 (pp 198-199) • TG: Unit Pre Assessment (pp xxiv-xxxviii) • DGL: Shapes and Paths • TG: L01-20 (pp 7-201) • TG: Post Assessment L01-04 (pp 4-5) • TG: Post Assessment L05-07 (pp 44-45) • TG: Post Assessment L08-11 (pp 79-80) • TG: Post Assessment L12-15 (pp 118-119) • TG: Post Assessment L16-20 (pp 162-163) • TG: Unit Pre Assessment (pp xxiv-xxiii) • DMB: Scales and Balances • TG: L01 -20(pp 7-174) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-11 (p 58) • TG: Post Assessment L12-15 (pp 100-101) • TG: Post Assessment L16-20 (p 139) • TG: Unit Pre Assessment (pp xxiii-xxvi) • DNC-A: Ordering and Arranging • TG: L01-30 (pp 5-301) • TG: Post Assessment L01-08 (pp 84-86) • TG: Post Assessment L09-14 (pp 144-145)

DAT=Developing Algebraic Thinking
DGL=Developing Geometric Logic

DMB=Developing Measurement Benchmarks
DNC=Developing Number Concepts

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| | <ul style="list-style-type: none">• TG: Post Assessment L15-24 (pp 244-246)• TG: Post Assessment L25-30 (pp 302-304)• DNC-B: Ordering and Arranging• TG: L01-20 (pp 5-192)• TG: Post Assessment L01-04 (pp 40-41)• TG: Post Assessment L05-07 (pp 72-73)• TG: Post Assessment L08-12 (pp 120-121)• TG: Post Assessment L13-17 (p 165)• TG: Post Assessment L18-20 (p 193) |
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Grade 4 - Mathematics

North Carolina Math 2010-2011 Standards

COMPETENCY GOAL	NC.1.	Number and Operations: The learner will build an understanding of and compute with non-negative rational numbers (.01 to at least 100,000).
OBJECTIVE	1.01.	Develop number sense for rational numbers from .01 to at least 100,000.
EXPECTATION	1.01.a.	Demonstrate multiple ways to represent numbers using models, words and symbolic representations. <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L08-12 (pp 73-106) • TG: Post Assessment L08-12 (pp 107-110) • DNC-B: Stories and Statements • TG: L07-09 (pp 59-82) • TG: L13 (pp 119-124)
EXPECTATION	1.01.b.	Identify the place and the value of a given digit in order to determine the magnitude of the number. <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L08-10 (pp 73-96) • TG: Post Assessment L08-12 (pp 107-110) • DNC-B: Stories and Statements • TG: L04-05 (pp 35-50) • TG: L07 (pp 59-66) • TG: L09-10 (pp 75-96) • TG: L12 (pp 107-113) • TG: L14-15 (pp 125-140) • TG: Post Assessment L04-09 (pp 83-84)
EXPECTATION	1.01.c.	Compare and order (including the use of symbolic notation). <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L11-12 (pp 97-106) • TG: Post Assessment L08-12 (pp 107-110) • DNC-B: Stories and Statements • TG: L08 (pp 67-74) • TG: Post Assessment L04-09 (pp 83-84) • TG: Post Assessment L10-12 (p 114)
OBJECTIVE	1.02.	Develop understanding of the meanings and uses of fractions and decimals.
EXPECTATION	1.02.a.	Use models, benchmarks (0, 1/2, 1, 1.5, 2 and so on), and reasoning to compare and order fractions and decimals. <ul style="list-style-type: none"> • DNC-B: Stories and Statements • TG: L01-02 (pp 5-20) • TG: L0-09 (pp 51-82) • TG: Post Assessment L04-09 (pp 83-84) • TG: Post Assessment L10-12 (p 114)
EXPECTATION	1.02.b.	Model and describe common equivalents among: halves, fourths, eighths, and mixed numbers; thirds, sixths, twelfths, and mixed numbers; fifths, tenths, hundredths, and mixed numbers. <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L02 (pp 19-28) • DNC-B: Stories and Statements • TG: L01-03 (pp 5-28)

		<ul style="list-style-type: none"> • TG: Post Assessment L01-03 (pp 29-30)
EXPECTATION	1.02.c.	<p>Understand and use mixed numbers and their equivalent fraction forms.</p> <ul style="list-style-type: none"> • DNC-B: Stories and Statements • TG: L09 (pp 75-82) • TG: Post Assessment L01-03 (pp 29-30)
EXPECTATION	1.02.d.	<p>Make connections between fractions and decimals.</p> <ul style="list-style-type: none"> • DNC-B: Stories and Statements • TG: L04-05 (pp 35-50) • TG: L07 (pp 59-66) • TG: Post Assessment L04-09 (pp 83-84)
OBJECTIVE	1.03.	Develop fluency and flexibility with multiplication and division involving:
EXPECTATION	1.03.a.	<p>Tables 0-12;</p> <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L05-07 (pp 39-62) • TG: L26-29 (pp 241-272) • TG: Post Assessment L19-30 (pp 273-278)
EXPECTATION	1.03.b.	<p>Up to two-digit by one-digit multiplication;</p> <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L03 (pp 23-30) • TG: L19-22 (pp 175-210) • TG: L30 (pp 273-278) • TG: Post Assessment L01-07 (pp 63-67) • TG: Post Assessment L19-30 (pp 273-278)
EXPECTATION	1.03.c.	<p>Strategies for two-digit by two-digit multiplication (larger numbers with calculator);</p> <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L06-07 (pp 49-62) • TG: L19 (pp 175-184) • TG: L23-25 (pp 211-240) • TG: L30 (pp 273-278) • TG: Post Assessment L01-07 (pp 63-67) • TG: Post Assessment L19-30 (pp 273-278)
EXPECTATION	1.03.d.	<p>Up to three-digit by one-digit division with and without remainders (larger numbers with calculator);</p> <ul style="list-style-type: none"> • DGL: Corners and Containers • TG: L18 (pp 167-174) • DNC-A: Stories and Statements • TG: L26-27 (pp 241-256) • TG: L30 (pp 273-278) • TG: Post Assessment L19-30 (pp 273-278)
EXPECTATION	1.03.e.	<p>Estimation of products and quotients and justification of the reasonableness of solutions in meaningful contexts.</p> <ul style="list-style-type: none"> • DNC-A: Stories and Statements

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		<ul style="list-style-type: none"> • TG: L21-22 (pp 193-210) • TG: L24-26 (pp 217- 250) • TG: L29 (pp 265-272)
OBJECTIVE	1.04.	Develop fluency with addition and subtraction of decimals and fractions with like denominators.
EXPECTATION	1.04.a.	Develop and analyze strategies for adding and subtracting numbers. <ul style="list-style-type: none"> • DNC-B: Stories and Statements • TG: L11-12 (pp 97-113) • TG: L14-15 (pp 125-140) • TG: Post Assessment L10-12 (p 114)
EXPECTATION	1.04.b.	Estimate sums and differences and justify the reasonableness of the solutions. <ul style="list-style-type: none"> • DNC-B: Stories and Statements • TG: L11-12 (pp 97-113) • TG: L14-15 (pp 125-140) • TG: Post Assessment L10-12 (p 114)
COMPETENCY GOAL	NC.2.	Measurement: The learner will apply the processes and components of measurement using metric units and make simple conversions within the same system (e.g. metric to metric or customary to customary).
OBJECTIVE	2.01.	Develop an understanding of and use the processes for measuring with metric units of measurement (linear, mass, capacity, temperature) recognizing that:
EXPECTATION	2.01.a.	The type of unit used to measure depends on the attribute being measured, <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L01-02 (pp 7-28) • TG: L04 (pp 41-50) • TG: L10 (pp 103-110) • TG: Post Assessment L01-06 (pp 5-6) • TG: Unit Pre Assessment (pp xxiii-xxviii)
EXPECTATION	2.01.b.	Larger units can be subdivided into equivalent units (partitioning), <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L01 (pp 7-18) • TG: L04 (pp 41-50) • TG: L06 (pp 61-68) • TG: L11 (pp 115-126) • TG: L15 (pp 157-164) • TG: L17-18 (pp 171-184) • TG: L20 (pp 193-198)
EXPECTATION	2.01.c.	Two objects can be compared in terms of a measurable quality using a third object (transitivity), <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L11 (pp 115-126) • TG: L15-19 (pp 157-192) • TG: Post Assessment L15-20 (pp 155-156) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-B: Stories and Statements • TG: L18 (pp 163-170)

		<ul style="list-style-type: none"> • TG: Post Assessment L16-18 (p 171)
EXPECTATION	2.01.d.	<p>The same unit can be repeated to determine the measure (iteration), and</p> <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L01 (pp 7-18) • TG: L04 (pp 41-50) • TG: L06 (pp 61-68) • TG: L11 (pp 115-126) • TG: L15 (pp 157-164) • TG: L17-18 (pp 171-184) • TG: L20 (pp 193-198)
EXPECTATION	2.01.e.	<p>The relationship between the size of the unit and the number of units needed (compensatory principle).</p> <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L01 (pp 7-18) • TG: L04 (pp 41-50) • TG: L06 (pp 61-68) • TG: L11 (pp 115-126) • TG: L15 (pp 157-164) • TG: L17-18 (pp 171-184) • TG: L20 (pp 193-198)
OBJECTIVE	2.02.	<p>Develop and use personal benchmarks (referents) for metric measurements to estimate length, mass, capacity, and temperature.</p> <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L03-05 (pp 29-60) • TG: L18 (pp 179-184) • TG: Post Assessment L15-20 (pp 155-156) • TG: Unit Pre Assessment (pp xxiii-xxviii)
OBJECTIVE	2.03.	<p>Select attributes and appropriate standard units and tools (metric) to estimate and measure length, mass, capacity, and temperature.</p> <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L16 (pp 161-174) • DMB: Inside and Outside • TG: L03-05 (pp 29-60) • TG: L11 (pp 115-126) • TG: L18 (pp 179-184) • TG: Post Assessment L11-14 (p 114) • TG: Post Assessment L15-20 (pp 155-156) • TG: Unit Pre Assessment (pp xxiii-xxviii)
OBJECTIVE	2.04.	<p>Make simple unit conversions within the same measurement system (metric and customary).</p> <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L01 (pp 7-18) • TG: L03-04 (pp 29-50) • TG: L15-19 (pp 157-192) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L15-20 (pp 155-156)

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		<ul style="list-style-type: none"> TG: Unit Pre Assessment (pp xxiii-xxviii)
COMPETENCY GOAL	NC.3.	Geometry: The learner will demonstrate an understanding of symmetry, transformations, area and perimeter.
OBJECTIVE	3.01.	Identify and describe symmetry in two-dimensional shapes; create symmetrical shapes with line and/or rotational symmetry. <ul style="list-style-type: none"> DGL: Corners and Containers TG: L14 (pp 131-137) TG: Post Assessment L13-16 (pp 118-119) TG: Unit Pre Assessment (pp xxiv-xxxii)
OBJECTIVE	3.02.	Identify, predict, and describe the results of transformations of two-dimensional shapes using reflections, translations, rotations. <ul style="list-style-type: none"> DGL: Corners and Containers TG: L13-16 (pp 121-152) TG: Post Assessment L13-16 (pp 118-119) TG: Unit Pre Assessment (pp xxiv-xxxii)
OBJECTIVE	3.03.	Solve problems involving area and perimeter.
EXPECTATION	3.03.a.	Cover regions using a variety of objects. <ul style="list-style-type: none"> DGL: Corners and Containers TG: L11-12 (pp 101-114) TG: Post Assessment L10-12 (p 90) TG: Unit Pre Assessment (pp xxiv-xxxii) DMB: Inside and Outside TG: L07-08 (pp 75-94)
EXPECTATION	3.03.b.	Create physical and pictorial models of area with and without grids. <ul style="list-style-type: none"> DGL: Corners and Containers TG: L11-12 (pp 101-114) TG: Post Assessment L10-12 (p 90) TG: Unit Pre Assessment (pp xxiv-xxxii) DMB: Inside and Outside TG: L07-08 (pp 75-94) DNC-A: Stories and Statements TG: L05-07 (pp 39-62)
EXPECTATION	3.03.c.	Estimate and measure area of rectangles. <ul style="list-style-type: none"> DGL: Corners and Containers TG: L11-12 (pp 101-114) DMB: Inside and Outside TG: L07-08 (pp 75-94) TG: Post Assessment L07-10 (pp 72-73) TG: Unit Pre Assessment (pp xxiii-xxviii)
EXPECTATION	3.03.d.	Estimate and measure perimeter of two-dimensional shapes. <ul style="list-style-type: none"> DAT: Signs and Symbols TG: L06 (pp 63-70) DMB: Inside and Outside

		<ul style="list-style-type: none"> • TG: L05 (pp 51-60) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-10 (pp 72-73) • TG: Unit Pre Assessment (pp xxiii-xxviii)
EXPECTATION	3.03.e.	<p>Explore relationships between area and perimeter.</p> <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: Post Assessment L07-10 (pp 72-73) • TG: Unit Pre Assessment (pp xxiii-xxviii)
COMPETENCY GOAL	NC.4.	Data Analysis and Probability: The learner will understand and use graphs, probability and data analysis.
OBJECTIVE	4.01.	Use the processes of statistical investigation.
EXPECTATION	4.01.a.	<p>Pose questions and design investigations that involve comparing two sets of related data each represented on the same type of graph using the same scale.</p> <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L16-17 (pp 161-184)
EXPECTATION	4.01.b.	<p>Collect, organize, analyze and display data using various representations including line graphs.</p> <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L17-19 (pp 179-198)
EXPECTATION	4.01.c.	<p>Analyze data presented in graphs, including circle graphs.</p> <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L11+20 (pp 113-204) • TG: Post Assessment L11-13 (pp 110-111) • TG: Post Assessment L14-16 (pp 140-141) • TG: Post Assessment L17-20 (p 178) • TG: Unit Pre Assessment (pp xxiii-xxxiii)
EXPECTATION	4.01.d.	<p>Compare two distributions of data, including their shapes, measures of center (mode, median) and variability (minimum and maximum values, unusual data points, and range).</p> <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L14-15 (pp 143-160) • TG: L17-19 (pp 179-198)
OBJECTIVE	4.02.	Understand situations involving simple probability.
EXPECTATION	4.02.a.	<p>Determine probability of an event from a context that includes a visual representation.</p> <ul style="list-style-type: none"> • DNC-B: Stories and Statements • TG: L19-22 (pp 177-212)
EXPECTATION	4.02.b.	<p>List all possible outcomes (sample space) of a situation or an event.</p> <ul style="list-style-type: none"> • DNC-B: Stories and Statements • TG: L19-20 (pp 177-192) • TG: L22 (pp 205-212)

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		<ul style="list-style-type: none"> • TG: Post Assessment L22-24 (p 228)
COMPETENCY GOAL	NC.5.	Algebra: The learner will demonstrate an understanding of mathematical relationships.
OBJECTIVE	5.01.	Analyze nonnumeric and numeric growing patterns.
EXPECTATION	5.01.a.	Use rules describe these patterns as functional relationships (arithmetic sequences only). <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (pp 40-41) • TG: Post Assessment L07-10 (pp 74-75) • TG: Unit Pre Assessment (pp xxiii-xxxiii)
EXPECTATION	5.01.b.	Create, extend, and find missing terms. <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L01-06 (pp 7-70) • TG: L10 (pp 101-106) • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (pp 40-41) • TG: Post Assessment L07-10 (pp 74-75) • TG: Unit Pre Assessment (pp xxiii-xxxiii) • DNC-A: Stories and Statements • TG: L04 (pp 31-38) • TG: L08 (pp 73-80) • TG: L16-17 (pp 147-162)
OBJECTIVE	5.02.	Model, write and evaluate whole number equations.
EXPECTATION	5.02.a.	Solve problems, including using variables to represent unknown quantities. <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L03 (pp 23-30) • TG: L05-07 (pp 39-62) • TG: Post Assessment L01-07 (pp 63-67)
EXPECTATION	5.02.c.	Find the value of variables. <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L03 (pp 23-30) • TG: L05-07 (pp 39-62) • TG: Post Assessment L01-07 (pp 63-67)
OBJECTIVE	5.03.	Develop an understanding of and apply order of operations in meaningful contexts. <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L01-02 (pp 5-22) • TG: L04-06 (pp 31-58)
COMPETENCY GOAL	NC.6.	Problem Solving and Reasoning: The student will solve problems and reason mathematically.
OBJECTIVE	6.01.	Recognize and apply connections among mathematical ideas.
EXPECTATION	6.01.a.	Connect concepts and skills from previous years to current objectives.

DAT=Developing Algebraic Thinking
DGL=Developing Geometric Logic

DMB=Developing Measurement Benchmarks
DNC=Developing Number Concepts

		<ul style="list-style-type: none"> • DGL: Corners and Containers • TG: L01-20 (pp 7-183) • TG: Post Assessment L01-04 (pp 5-6) • TG: Post Assessment L05-09 (pp 47-48) • TG: Post Assessment L10-12 (p 90) • TG: Post Assessment L13-16 (pp 118-119) • TG: Post Assessment L17-20 (pp 156-158) • TG: Unit Pre Assessment (pp xxiv-xxxii) • DMB: Inside and Outside • TG: L01-19 (pp 7-192) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-10 (pp 72-73) • TG: Post Assessment L11-14 (p 114) • TG: Post Assessment L15-20 (pp 155-156) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: Stories and Statements • TG: L01--30 (pp 5-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227)
<p>EXPECTATION</p>	<p>6.01.b.</p>	<p>Connect concepts and skills from multiple strands to solve problems.</p> <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L02-16 (pp 17-174) • TG: L20 (pp 199-204) • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (pp 40-41) • TG: Post Assessment L07-10 (pp 74-75) • TG: Post Assessment L11-13 (pp 110-111) • TG: Post Assessment L14-16 (pp 140-141) • TG: Post Assessment L17-20 (p 178) • TG: Unit Pre Assessment (pp xxiii-xxxiii) • DGL: Corners and Containers • TG: L01 -20(pp 7-183) • TG: Post Assessment L01-04 (pp 5-6) • TG: Post Assessment L05-09 (pp 47-48) • TG: Post Assessment L10-12 (p 90) • TG: Post Assessment L13-16 (pp 118-119) • TG: Post Assessment L17-20 (pp 156-158) • TG: Unit Pre Assessment (pp xxiv-xxxii) • DMB: Inside and Outside • TG: L01 (pp 7-18) • TG: L03-04 (pp 29-50) • TG: L06-20 (pp 61-198) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-10 (pp 72-73) • TG: Post Assessment L11-14 (p 114) • TG: Post Assessment L15-20 (pp 155-156) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: Stories and Statements • TG: L01-30 (pp 5-278) • TG: Post Assessment L01-07 (pp 63-67) • TG: Post Assessment L08-12 (pp 107-110) • TG: Post Assessment L13-18 (pp 165-170) • TG: Post Assessment L19-30 (pp 273-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227) • TG: Post Assessment L01-03 (pp 29-30) • TG: Post Assessment L04-09 (pp 83-84) • TG: Post Assessment L10-12 (p 114)

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		<ul style="list-style-type: none"> • TG: Post Assessment L13-15 (pp 141-142) • TG: Post Assessment L16-18 (p 171) • TG: Post Assessment L19-21 (p 199) • TG: Post Assessment L22-24 (p 228)
OBJECTIVE	6.02.	<p>Develop fluency in solving single and multi-step problems that arise in mathematics and in other contexts, building mathematical knowledge through problem solving.</p> <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L09 (pp 95-102) • DNC-A: Stories and Statements • TG: L01--30 (pp 5-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227)
OBJECTIVE	6.03.	Use reasoning to solve problems.
EXPECTATION	6.03.a.	<p>Understand situations and communicate mathematical problem solving.</p> <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L01--30 (pp 5-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227)
EXPECTATION	6.03.b.	<p>Make estimates with appropriate ranges.</p> <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L20 (pp 193-198)
EXPECTATION	6.03.c.	<p>Reflect, extend and refine thinking.</p> <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L02-16 (pp 17-174) • TG: L20 (pp 199-204) • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (pp 40-41) • TG: Post Assessment L07-10 (pp 74-75) • TG: Post Assessment L11-13 (pp 110-111) • TG: Post Assessment L14-16 (pp 140-141) • TG: Post Assessment L17-20 (p 178) • TG: Unit Pre Assessment (pp xxiii-xxxiii) • DGL: Corners and Containers • TG: L01 -20(pp 7-183) • TG: Post Assessment L01-04 (pp 5-6) • TG: Post Assessment L05-09 (pp 47-48) • TG: Post Assessment L10-12 (p 90) • TG: Post Assessment L13-16 (pp 118-119) • TG: Post Assessment L17-20 (pp 156-158) • TG: Unit Pre Assessment (pp xxiv-xxxii) • DMB: Inside and Outside • TG: L01 (pp 7-18) • TG: L03-04 (pp 29-50) • TG: L06-20 (pp 61-198) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-10 (pp 72-73) • TG: Post Assessment L11-14 (p 114) • TG: Post Assessment L15-20 (pp 155-156) • TG: Unit Pre Assessment (pp xxiii-xxviii)

		<ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L01-30 (pp 5-278) • TG: Post Assessment L01-07 (pp 63-67) • TG: Post Assessment L08-12 (pp 107-110) • TG: Post Assessment L13-18 (pp 165-170) • TG: Post Assessment L19-30 (pp 273-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227) • TG: Post Assessment L01-03 (pp 29-30) • TG: Post Assessment L04-09 (pp 83-84) • TG: Post Assessment L10-12 (p 114) • TG: Post Assessment L13-15 (pp 141-142) • TG: Post Assessment L16-18 (p 171) • TG: Post Assessment L19-21 (p 199) • TG: Post Assessment L22-24 (p 228)
OBJECTIVE	6.04.	Use the language and symbols of mathematics and appropriate technology to:
EXPECTATION	6.04.a.	Solve problems; <ul style="list-style-type: none"> • DMB: Inside and Outside • TG: L09 (pp 95-102) • DNC-A: Stories and Statements • TG: L01-30 (pp 5-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227)
EXPECTATION	6.04.b.	Communicate mathematical ideas; <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (pp 40-41) • TG: Post Assessment L07-10 (pp 74-75) • TG: Post Assessment L11-13 (pp 110-111) • TG: Post Assessment L14-16 (pp 140-141) • TG: Post Assessment L17-20 (p 178) • TG: Unit Pre Assessment (pp xxiii-xxxiii) • DGL: Corners and Containers • TG: L01-20 (pp 7-183) • TG: Post Assessment L01-04 (pp 5-6) • TG: Post Assessment L05-09 (pp 47-48) • TG: Post Assessment L10-12 (p 90) • TG: Post Assessment L13-16 (pp 118-119) • TG: Post Assessment L17-20 (pp 156-158) • TG: Unit Pre Assessment (pp xxiv-xxxii) • DMB: Inside and Outside • TG: L01-19 (pp 7-192) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-10 (pp 72-73) • TG: Post Assessment L11-14 (p 114) • TG: Post Assessment L15-20 (pp 155-156) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: Stories and Statements • TG: L01-30 (pp 5-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227) • TG: Post Assessment L04-09 (pp 83-84) • TG: Post Assessment L10-12 (p 114)

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EXPECTATION	6.04.c.	<p>Demonstrate understanding of problems and solutions through oral, pictorial, and written explanations.</p> <ul style="list-style-type: none"> • DAT: Signs and Symbols • TG: L01-20 (pp 7-204) • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (pp 40-41) • TG: Post Assessment L07-10 (pp 74-75) • TG: Post Assessment L11-13 (pp 110-111) • TG: Post Assessment L14-16 (pp 140-141) • TG: Post Assessment L17-20 (p 178) • TG: Unit Pre Assessment (pp xxiii-xxxiii) • DGL: Corners and Containers • TG: L01-20 (pp 7-183) • TG: Post Assessment L01-04 (pp 5-6) • TG: Post Assessment L05-09 (pp 47-48) • TG: Post Assessment L10-12 (p 90) • TG: Post Assessment L13-16 (pp 118-119) • TG: Post Assessment L17-20 (pp 156-158) • TG: Unit Pre Assessment (pp xxiv-xxxii) • DMB: Inside and Outside • TG: L01-19 (pp 7-192) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-10 (pp 72-73) • TG: Post Assessment L11-14 (p 114) • TG: Post Assessment L15-20 (pp 155-156) • TG: Unit Pre Assessment (pp xxiii-xxviii) • DNC-A: Stories and Statements • TG: L01-30 (pp 5-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227) • TG: Post Assessment L04-09 (pp 83-84) • TG: Post Assessment L10-12 (p 114)
OBJECTIVE	6.05.	<p>Create and use representations to organize, record and communicate mathematical ideas.</p> <ul style="list-style-type: none"> • DNC-A: Stories and Statements • TG: L01-30 (pp 5-278) • DNC-B: Stories and Statements • TG: L01-24 (pp 5-227)

Grade 5 - Mathematics
North Carolina Math 2010-2011 Standards

COMPETENCY GOAL	NC.1.	Number and Operations: The learner will build an understanding of and compute with non-negative rational numbers (.01 to at least 100,000).
OBJECTIVE	1.01.	Develop number sense for rational numbers from 0.001 at least to 1,000,000.
EXPECTATION	1.01.a.	Demonstrate multiple ways to represent numbers using models, words and symbolic representations. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L09-14 (pp 85-132) • TG: L21-23 (pp 195-220) • DNC-B: Values and Variables • TG: L13 (pp 117-122)
EXPECTATION	1.01.b.	Identify the place and the value of a given digit in order to determine the magnitude of the number. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L09-14 (pp 85-132) • TG: L16 (pp 149-158) • TG: Post Assessment L09-14 (pp 133-134)
EXPECTATION	1.01.c.	Compare and order (including the use of symbolic notation). <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L10-14 (pp 93-132) • TG: Post Assessment L09-14 (pp 133-134)
EXPECTATION	1.01.d.	Identify factors and multiples including square, prime, and composite whole numbers to 100. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L24-25 (pp 221-240) • TG: L28-30 (pp 265-287) • TG: Post Assessment L28-30 (p 288) • DNC-B: Values and Variables • TG: L01-04 (pp 5-40) • TG: Post Assessment L01-04 (pp 41)
OBJECTIVE	1.02.	Develop fluency and flexibility with all whole number operations (including but not limited to standard algorithms) involving:
EXPECTATION	1.02.a.	Up to three-digit by two-digit multiplication (larger numbers with calculators). <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L03--06 (pp 25-62) • TG: L21-23 (pp 195-220) • TG: Post Assessment L01-08 (pp 79-80) • TG: Post Assessment L21-27 (pp 258-260)
EXPECTATION	1.02.b.	Up to three-digit by two-digit division with and without remainder (larger numbers with calculators). <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L07 (pp 63-72) • TG: L25-27 (pp 229-257) • TG: Post Assessment L21-27 (pp 258-260)

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EXPECTATION	1.02.c.	Estimation of products and quotients and justification of the reasonableness of solutions in meaningful contexts. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L27 (pp 251-257)
EXPECTATION	1.02.d.	Analyzing the relationships among operations. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-08 (pp 5-78) • TG: L19 (pp 175-180) • TG: Post Assessment L01-08 (pp 79-80)
OBJECTIVE	1.03.	Develop fluency with addition and subtraction of decimals and fractions with unlike denominators (within fraction families): halves, fourths, eighths, sixteenths and mixed numbers; thirds, sixths, twelfths and mixed numbers; fifths, tenths, hundredths, thousandths and mixed numbers.
EXPECTATION	1.03.a.	Develop and analyze strategies for adding and subtracting numbers. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L16-17 (pp 149-166) • TG: L19-20 (pp 175-188) • TG: Post Assessment L15-20 (pp 189-190) • DNC-B: Values and Variables • TG: L09-15 (pp 81 -135) • TG: Post Assessment L05-12 (pp 110 - 111) • TG: Post Assessment L17-19 (pp 172 - 173)
EXPECTATION	1.03.b.	Estimate sums and differences and justify the reasonableness of the solutions in meaningful contexts. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L16 (pp 149-158) • DNC-B: Values and Variables • TG: L09 (pp 81 -86)
COMPETENCY GOAL	NC.2.	Measurement: The learner will demonstrate an understanding of measurement processes and components.
OBJECTIVE	2.01.	Use appropriate standard units and tools to develop fluency and flexibility with unit conversions within same systems of measure; solve problems using these skills. <ul style="list-style-type: none"> • DMB: Tools and Time • TG: L01 (pp 7-14) • TG: L04 (pp 31-38) • TG: L18-19 (pp 147-158) • TG: Post Assessment L01-04 (pp 4-5) • TG: Post Assessment L16-20 (pp 133-134) • TG: Unit Pre Assessment (pp xxii-xxix)
OBJECTIVE	2.02.	Identify, estimate, and measure the angles of plane figures using appropriate tools. <ul style="list-style-type: none"> • DGL: Conjectures and Transformations • TG: L08-09 (pp 79-93) • TG: L11 (pp 107-114) • TG: Post Assessment L06-10 (pp 55-57) • TG: Unit Pre Assessment (pp xxii-xxx)

OBJECTIVE	2.03.	Solve problems using the concepts and procedures involving elapsed time. <ul style="list-style-type: none"> • DMB: Tools and Time • TG: L11-13 (pp 95-114) • TG: Post Assessment L11-15 (pp 93-94) • TG: Unit Pre Assessment (pp xxii-xxix)
COMPETENCY GOAL	NC.3.	Geometry: The learner will understand and use properties and relationships of two and three dimensional shapes.
OBJECTIVE	3.01.	Identify, describe, analyze, compare, and classify triangles and quadrilaterals by properties including sides, angles and diagonals. <ul style="list-style-type: none"> • DGL: Conjectures and Transformations • TG: L07-09 (pp 71-93)
OBJECTIVE	3.02.	Make and test conjectures about polygons involving:
EXPECTATION	3.02.a.	Parallelism and perpendicularity of sides, and <ul style="list-style-type: none"> • DGL: Conjectures and Transformations • TG: L06 (pp 59-69)
EXPECTATION	3.02.b.	Sum of measures of interior angles. <ul style="list-style-type: none"> • DGL: Conjectures and Transformations • TG: L08-09 (pp 79-93)
OBJECTIVE	3.03.	Use spatial reasoning to analyze three-dimensional shapes.
EXPECTATION	3.03.a.	Describe the number of edges, faces, and vertices of polyhedral. <ul style="list-style-type: none"> • DGL: Conjectures and Transformations • TG: L02 (pp (17-25) • TG: Post Assessment L01-05 (pp 5-6) • TG: Unit Pre Assessment (pp xxii-xxx) • DMB: Tools and Time • TG: L09 (pp 75-80)
EXPECTATION	3.03.b.	Relate a three-dimensional shape to its two-dimensional representation (net). <ul style="list-style-type: none"> • DGL: Conjectures and Transformations • TG: L05 (pp 45-50)
OBJECTIVE	3.04.	Explore concepts of volume and surface area for rectangular prisms. <ul style="list-style-type: none"> • DMB: Tools and Time • TG: L09-10 (pp 75-88) • TG: Post Assessment L05-10 (pp 43-44) • TG: Unit Pre Assessment (pp xxii-xxix)
COMPETENCY GOAL	NC.4.	Data Analysis and Probability: The learner will analyze data representations using statistical concepts.
OBJECTIVE	4.01.	Use the processes of statistical investigation.

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EXPECTATION	4.01.a.	Pose questions, formulate hypotheses, and design studies involve single or multiple sets of data to investigate and verify hypotheses. <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: L11 (pp 105-112) • TG: L20 (pp 191-198)
EXPECTATION	4.01.b.	Collect, organize, analyze, and display data using various representations, including stem-and-leaf plots. <ul style="list-style-type: none"> • DMB: Tools and Time • TG: Post Assessment L11-15 (pp 93-94) • TG: Unit Pre Assessment (pp xxii-xxix)
EXPECTATION	4.01.c.	Analyze data using measures of center (mode, median) and variability (minimum and maximum values, unusual data points, and range). <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: L13 (pp 121-130) • TG: L15-16 (pp 143-158) • TG: L19 (pp 183-190) • TG: Post Assessment L11-13 (pp 102-103) • TG: Post Assessment L17-20 (pp 162-163) • TG: Unit Pre Assessment (pp xxiii-xxxiii)
EXPECTATION	4.01.d.	Explore the mean as a measure of center and its interpretation as a fair share. <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: Post Assessment L11-13 (pp 102-103) • TG: Post Assessment L17-20 (pp 162-163)
OBJECTIVE	4.02.	Compare and contrast different representations of the same data, discuss the appropriateness of each representation for the context. <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: L12-13 (pp 113-130) • TG: L15 (pp 143-150) • TG: L17 (pp 165-174) • TG: L19-20 (pp 183-198)
COMPETENCY GOAL	NC.5.	Algebra: The learner will demonstrate an understanding of patterns, relationships and elementary algebraic representations.
OBJECTIVE	5.01.	Analyze nonnumeric and numeric growing patterns.
EXPECTATION	5.01.a.	Use rules to describe these patterns as functional relationships (arithmetic sequences only). <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (p 38) • TG: Post Assessment L07-10 (pp 64-65) • TG: Unit Pre Assessment (pp xxiii-xxxiii) • DNC-B: Values and Variables • TG: L19 (pp 165-171)
EXPECTATION	5.01.b.	Create, extend, and find missing terms. <ul style="list-style-type: none"> • DAT: Steps and Distance

		<ul style="list-style-type: none"> • TG: L02-06 (pp 19-60) • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (p 38) • TG: Post Assessment L07-10 (pp 64-65) • TG: Unit Pre Assessment (pp xxiii-xxxiii) • DNC-A: Values and Variables • TG: L09 (pp 85-92) • TG: L24-25 (pp 221-240) • TG: L28-29 (pp 265-280)
EXPECTATION	5.01.c.	<p>Display numeric results using coordinate graphs.</p> <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: L06 (pp 55-60) • TG: L10 (pp 91-98) • TG: L16 (pp 151-158) • DGL: Conjectures and Transformations • TG: L18 (pp 173-179)
EXPECTATION	5.01.d.	<p>Write equations with symbolic rules.</p> <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (p 38) • TG: Post Assessment L07-10 (pp 64-65) • TG: Unit Pre Assessment (pp xxiii-xxxiii) • DNC-B: Values and Variables • TG: L19 (pp 165-171)
OBJECTIVE	5.02.	<p>Model, write and evaluate whole number equations and equations involving addition/subtraction of decimals and fractions.</p>
EXPECTATION	5.02.a.	<p>Represent a problem including using variables to represent unknown quantities.</p> <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: L05 (pp 47-54) • TG: L08-09 (pp 77-90) • DNC-B: Values and Variables • TG: L09-12 (pp 81-109) • TG: L15-20 (pp 129-185)
EXPECTATION	5.02.b.	<p>Demonstrate an understanding of equality and inequality.</p> <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L10-11 (pp 93-110) • DNC-B: Values and Variables • TG: L06 (pp 55-64)
EXPECTATION	5.02.c.	<p>Find the value of variables.</p> <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-03 (pp 5-34) • TG: L07 (pp 63-72)

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OBJECTIVE	5.03.	Develop and test generalizations based on observations of patterns and relationships:
EXPECTATION	5.03.a.	Identity property for addition and multiplication, <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L06 (pp 53-62) • TG: L08 (pp 73-78)
EXPECTATION	5.03.b.	Associative property for addition and multiplication, and <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-05 (pp 5-52) • TG: L07-08 (pp 63-78) • TG: Post Assessment L01-08 (pp 79-80)
EXPECTATION	5.03.c.	Distributive property. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-05 (pp 5-52) • TG: L07-08 (pp 63-78)
OBJECTIVE	5.04.	Apply order of operations in meaningful contexts. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-05 (pp 5-52)
COMPETENCY GOAL	NC.6.	Problem Solving and Reasoning: The student will solve problems and reason mathematically.
OBJECTIVE	6.01.	Recognize and apply connections among mathematical ideas.
EXPECTATION	6.01.a.	Connect concepts and skills from previous years to current objectives. <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: L08-09 (pp 77-90) • DGL: Conjectures and Transformations • TG: L01-20 (pp 7-195) • DMB: Tools and Time • TG: L01-09 (pp 7-80) • TG: L12 (pp 101-108) • TG: L16 (pp 135-140) • TG: L17 (pp 141-146) • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213)
EXPECTATION	6.01.b.	Connect concepts and skills from multiple strands to solve problems. <ul style="list-style-type: none"> • DGL: Conjectures and Transformations • TG: L19 (pp 181-187) • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213)

OBJECTIVE	6.02.	Develop fluency in solving single and multi-step problems that arise in mathematics and in other contexts, building mathematical knowledge through problem solving. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213)
OBJECTIVE	6.03.	Use reasoning to solve problems.
EXPECTATION	6.03.a.	Understand situations and communicate mathematical problem solving. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213)
EXPECTATION	6.03.b.	Make estimates with appropriate ranges. <ul style="list-style-type: none"> • DNC-B: Values and Variables • TG: L15-17 (pp 129-156)
EXPECTATION	6.03.c.	Reflect, extend and refine thinking. <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213)
OBJECTIVE	6.04.	Use the language and symbols of mathematics and appropriate technology to:
EXPECTATION	6.04.a.	Solve problems; <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213)
EXPECTATION	6.04.b.	Communicate mathematical ideas; <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (p 38) • TG: Post Assessment L07-10 (pp 64-65) • TG: Post Assessment L11-13 (pp 102-103) • TG: Post Assessment L17-20 (pp 162-163) • DGL: Conjectures and Transformations • TG: L01-20 (pp 7-195) • TG: Post Assessment L01-05 (pp 5-6) • TG: Post Assessment L06-10 (pp 55-57) • TG: Post Assessment L11-13 (p 106) • TG: Unit Pre Assessment (pp xxii-xxx) • DMB: Tools and Time • TG: L01-20 (pp 7-166) • TG: Post Assessment L01-04 (pp 4-5) • TG: Post Assessment L05-10 (pp 43-44) • TG: Post Assessment L11-15 (pp 93-94)

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		<ul style="list-style-type: none"> • TG: Post Assessment L16-20 (pp 133-134) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213) • TG: Post Assessment L20-24 (pp 214)
EXPECTATION	6.04.c.	<p>Demonstrate understanding of problems and solutions through oral, pictorial, and written explanations.</p> <ul style="list-style-type: none"> • DAT: Steps and Distance • TG: L01-20 (pp 7-198) • TG: Post Assessment L01-03 (pp 4-5) • TG: Post Assessment L04-06 (p 38) • TG: Post Assessment L07-10 (pp 64-65) • TG: Post Assessment L11-13 (pp 102-103) • TG: Post Assessment L17-20 (pp 162-163) • DGL: Conjectures and Transformations • TG: L01-20 (pp 7-195) • TG: Post Assessment L01-05 (pp 5-6) • TG: Post Assessment L06-10 (pp 55-57) • TG: Post Assessment L11-13 (p 106) • TG: Unit Pre Assessment (pp xxii-xxx) • DMB: Tools and Time • TG: L01-20 (pp 7-166) • TG: Post Assessment L01-04 (pp 4-5) • TG: Post Assessment L05-10 (pp 43-44) • TG: Post Assessment L11-15 (pp 93-94) • TG: Post Assessment L16-20 (pp 133-134) • TG: Unit Pre Assessment (pp xxii-xxix) • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213) • TG: Post Assessment L20-24 (pp 214) • TG: Post Assessment L05-12 (pp 110-111) • TG: Post Assessment L13-16 (pp 145-146) • TG: Post Assessment L20-24 (pp 214)
OBJECTIVE	6.05.	<p>Create and use representations to organize, record and communicate mathematical ideas.</p> <ul style="list-style-type: none"> • DNC-A: Values and Variables • TG: L01-30 (pp 5-287) • DNC-B: Values and Variables • TG: L01-24 (pp 5-213)

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