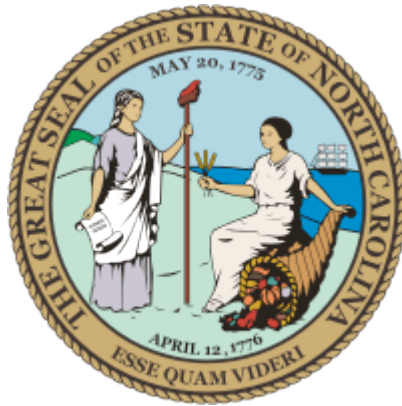


Math Out of the Box[®] Correlation to North Carolina




Standard Course of Study for Mathematics - 2003 Standards Grades K-5



Math Out of the Box[®] Correlation to North Carolina Standard Course of Study for Mathematics 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>



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**

**Kindergarten - Mathematics
North Carolina Math 2003 Standards**

COURSE / COMPETENCY GOAL	NC.1.	The learner will recognize, model, and write whole numbers through 30.
COMPETENCY GOAL / OBJECTIVE	1.01.	Develop number sense for whole numbers through 30.
OBJECTIVE / EXPECTATION	1.01.a.	<p>Connect model, number word (orally), and number, using a variety of representations.</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Over and Under • TG: L15 (pp 103-108) • Developing Number Concepts: Like and Unlike Module A • 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) • Developing Number Concepts: Like and Unlike Module B • TG: L01-20 (pp 5-181) • TG: Post Assessment L01-08 (pp 65-71) • TG: Post Assessment L09-12 (pp 109-111)
OBJECTIVE / EXPECTATION	1.01.b.	<p>Count objects in a set.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Like and Unlike Module A • TG: L01-20 (pp 5-179) • TG: Post Assessment L10-15 (pp 130-133) • Developing Number Concepts: Like and Unlike Module B • TG: L01-20 (pp 5-181)
OBJECTIVE / EXPECTATION	1.01.c.	<p>Read and write numerals.</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Over and Under • TG: L15 (pp 103-108) • Developing Number Concepts: Like and Unlike Module A • 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) • Developing Number Concepts: Like and Unlike Module B • TG: L01-03 (pp 5-26) • 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)
OBJECTIVE / EXPECTATION	1.01.d.	<p>Compare and order sets and numbers.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: Unit Pre Assessment (pp xxii-xxiv) • Developing Number Concepts: Like and Unlike Module A • TG: L01-20 (pp 5-179) • Developing Number Concepts: Like and Unlike Module B • TG: L01-12 (pp 5-108)

OBJECTIVE / EXPECTATION	1.01.e.	Use ordinals (1st-10th). <ul style="list-style-type: none"> • Developing Number Concepts: Like and Unlike Module B • TG: L04-05 (pp 27-42) • TG: Post Assessment L01-08 (pp 65-71)
OBJECTIVE / EXPECTATION	1.01.f.	Estimate quantities fewer than or equal to 10. <ul style="list-style-type: none"> • Developing Number Concepts: Like and Unlike Module B • TG: L07 (pp 49-56) • TG: Post Assessment L01-08 (pp 65-71)
OBJECTIVE / EXPECTATION	1.01.g.	Recognize equivalence in sets and numbers 1-10. <ul style="list-style-type: none"> • Developing Number Concepts: Like and Unlike Module A • TG: L03-09 (pp 19-71) • TG: L12 (pp 101-108) • Developing Number Concepts: Like and Unlike Module B • TG: Post Assessment L09-12 (pp 109-111)
COMPETENCY GOAL / OBJECTIVE	1.02.	Share equally (divide) between two people; explain. <ul style="list-style-type: none"> • Developing Number Concepts: Like and Unlike Module B • TG: L08 (pp 57-64) • TG: L10 (pp 83-91) • TG: Post Assessment L01-08 (pp 65-71) • TG: Post Assessment L09-12 (pp 109-111)
COMPETENCY GOAL / OBJECTIVE	1.03.	Solve problems and share solutions to problems in small groups. <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: Unit Pre Assessment (pp xxii-xxiv) • TG: L02-20 (pp 13-150) • TG: Post Assessment L01-10 (p 54) • TG: Post Assessment L11-20 (pp 124-125) • Developing Geometric Logic: Towers and Trails • TG: L02-11 (pp 13-87) • TG: L13-20 (pp 99-151) • TG: Post Assessment L13-16 (p 98) • Developing Measurement Benchmarks: Over and Under • TG: L01-20 (pp 7-144) • Developing Number Concepts: Like and Unlike Module A • TG: L01-20 (pp 5-179) • Developing Number Concepts: Like and Unlike Module B • TG: L01-20 (pp 5-181)
COURSE / COMPETENCY GOAL	NC.2.	The learner will explore concepts of measurement.
COMPETENCY GOAL / OBJECTIVE	2.01.	Compare attributes of two objects using appropriate vocabulary (color, weight, height, width, length, texture). <ul style="list-style-type: none"> • Developing Geometric Logic: Towers and Trails • TG: L04 (pp 27-32) • TG: L08 (pp 61-67)

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		<ul style="list-style-type: none"> • TG: Post Assessment L07-12 (p 51) • Developing Measurement Benchmarks: Over and Under • TG: Unit Pre Assessment (pp xxii-xxv) • 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)
COMPETENCY GOAL / OBJECTIVE	2.02.	<p>Recognize concepts of calendar time using appropriate vocabulary (days of the week, months of the year, seasons).</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Over and Under • TG: L14-15 (pp 97-108)
COURSE / COMPETENCY GOAL	NC.3.	The learner will explore concepts of geometry.
COMPETENCY GOAL / OBJECTIVE	3.01.	<p>Identify, build, draw, and name triangles, rectangles, and circles; identify, build, and name spheres and cubes.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: L01 (pp 5-12) • Developing Geometric Logic: Towers and Trails • TG: Unit Pre Assessment (pp xxiii-xxvi) • TG: L01-12 (pp 7-93) • TG: L15-16 (pp 113-124) • TG: Post Assessment L01-06 (p 5) • TG: Post Assessment L07-12 (p 51)
COMPETENCY GOAL / OBJECTIVE	3.02.	<p>Compare geometric shapes (identify likenesses and differences).</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: L01 (pp 5-12) • Developing Geometric Logic: Towers and Trails • TG: Unit Pre Assessment (pp xxiii-xxvi) • TG: L01-12 (pp 7-93) • TG: L15-16 (pp 113-124) • TG: Post Assessment L01-06 (p 5) • TG: Post Assessment L07-12 (p 51)
COMPETENCY GOAL / OBJECTIVE	3.03.	<p>Model and use directional and positional vocabulary.</p> <ul style="list-style-type: none"> • Developing Geometric Logic: Towers and Trails • TG: L18-20 (pp 135-151) • TG: Post Assessment L17-20 (p 128)
COMPETENCY GOAL / OBJECTIVE	3.04.	<p>Complete simple spatial visualization tasks and puzzles.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: L01 (pp 5-12) • TG: L03 (pp 19-24) • TG: L07 (pp 55-60) • TG: L09-10 (pp 67-76) • Developing Geometric Logic: Towers and Trails

		<ul style="list-style-type: none"> • TG: L01-20 (pp 7-151)
COURSE / COMPETENCY GOAL	NC.4.	The learner will collect, organize and display data.
COMPETENCY GOAL / OBJECTIVE	4.01.	<p>Collect and organize data as a group activity.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: Unit Pre Assessment (pp xxii-xxiv) • TG: L11-20 (pp 81-150) • TG: Post Assessment L11-20 (pp 124-125) • Developing Geometric Logic: Towers and Trails • TG: L10-11 (pp 77-87) • Developing Number Concepts: Like and Unlike Module B • TG: L16-19 (pp 149-176) • TG: Post Assessment L16-20 (p 182)
COMPETENCY GOAL / OBJECTIVE	4.02.	<p>Display and describe data with concrete and pictorial graphs as a group activity.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: L14-20 (pp 103-150) • Developing Number Concepts: Like and Unlike Module B • TG: L17-19 (pp 157-176)
COURSE / COMPETENCY GOAL	NC.5.	The learner will model simple patterns and sort objects.
COMPETENCY GOAL / OBJECTIVE	5.01.	<p>Sort and classify objects by one attribute.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: L11-20 (pp 81-150) • Developing Geometric Logic: Towers and Trails • TG: L02-03 (pp 13-25) • TG: L06-07 (pp 41-59) • TG: L10 (pp 77-81) • TG: L12-15 (pp 89-118) • Developing Measurement Benchmarks: Over and Under • TG: L01 (pp 7-12) • Developing Number Concepts: Like and Unlike Module A • TG: L07 (pp 51-59)
COMPETENCY GOAL / OBJECTIVE	5.02.	<p>Create and extend patterns with actions, words, and objects.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Rhythm and Design • TG: Unit Pre Assessment (pp xxii-xxiv) • TG: L01-10 (pp 5-76) • TG: Post Assessment L01-10 (p 54) • Developing Number Concepts: Like and Unlike Module A • TG: L02 (pp 11-18) • TG: L16-19 (pp 139-172)

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

**Grade 1 - Mathematics
North Carolina Math 2003 Standards**

COURSE / COMPETENCY GOAL	NC.1.	The learner will read, write, and model whole numbers through 99 and compute with whole numbers.
COMPETENCY GOAL / OBJECTIVE	1.01.	Develop number sense for whole numbers through 99.
OBJECTIVE / EXPECTATION	1.01.a.	<p>Connect the model, number word, and number using a variety of representations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module A • TG: L01-22 (pp 5-217) • TG: Post Assessment L01-04 (pp 41-43) • TG: Post Assessment L18-22 (pp 218-221) • Developing Number Concepts: Families and Facts Module B • TG: L01-07 (pp 5-81) • TG: Post Assessment L04-07 (pp 82-83)
OBJECTIVE / EXPECTATION	1.01.b.	<p>Use efficient strategies to count the number of objects in a set.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module A • TG: L01-22 (pp 5-217) • TG: Post Assessment L01-04 (pp 41-43) • Developing Number Concepts: Families and Facts Module B • TG: L01-07 (pp 5-81) • TG: L09 (pp 97-106)
OBJECTIVE / EXPECTATION	1.01.c.	<p>Read and write numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module A • TG: L04 (pp 33-40) • TG: L22 (pp 209-217) • TG: Post Assessment L01-04 (pp 41-43) • TG: Post Assessment L18-22 (pp 218-221) • Developing Number Concepts: Families and Facts Module B • TG: L05-07 (pp 51-81) • TG: Post Assessment L04-07 (pp 82-83)
OBJECTIVE / EXPECTATION	1.01.d.	<p>Compare and order sets and numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module A • TG: L01-22 (pp 5-217) • TG: Post Assessment L18-22 (pp 218-221) • Developing Number Concepts: Families and Facts Module B • TG: L01-07 (pp 5-81) • TG: Post Assessment L04-07 (pp 82-83)
OBJECTIVE / EXPECTATION	1.01.e.	<p>Build understanding of place value (ones, tens).</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module B • TG: L04-07 (pp 41-81) • TG: Post Assessment L04-07 (pp 82-83)

OBJECTIVE / EXPECTATION	1.01.f.	<p>Estimate quantities fewer than or equal to 100.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module B • TG: L01-03 (pp 5-33) • TG: Post Assessment L01-03 (pp 34-35)
OBJECTIVE / EXPECTATION	1.01.g.	<p>Recognize equivalence in sets and numbers 1-99.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module A • TG: L05-07 (pp 49-76) • TG: L22 (pp 209-217)
COMPETENCY GOAL / OBJECTIVE	1.02.	<p>Use groupings of 2's, 5's, and 10's with models and pictures to count collections of objects.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Together and Apart • TG: Unit Pre Assessment (pp xxiv-xxx) • TG: L07-09 (pp 61-88) • TG: Post Assessment L07-10 (p 60) • Developing Measurement Benchmarks: Up and Down • TG: L02 (pp 15-20) • TG: L06 (pp 37-42) • TG: L12 (pp 89-94) • Developing Number Concepts: Families and Facts Module A • TG: L08-09 (pp 77-96) • TG: L11-12 (pp 105-118) • TG: L19 (pp 183-190) • TG: Post Assessment L18-22 (pp 218-221) • Developing Number Concepts: Families and Facts Module B • TG: L02-03 (pp 15-33) • TG: L09 (pp 97-106)
COMPETENCY GOAL / OBJECTIVE	1.03.	<p>Develop fluency with single-digit addition and corresponding differences using strategies such as modeling, composing and decomposing quantities, using doubles, and making tens.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module A • TG: L05-17 (pp 49-166) • TG: Post Assessment L05-12 (pp 119-122) • TG: Post Assessment L13-17 (pp 167-168) • Developing Number Concepts: Families and Facts Module B • TG: L01-14 (pp 5-144) • TG: Post Assessment L08-14 (pp 145-146)
COMPETENCY GOAL / OBJECTIVE	1.04.	<p>Create, model, and solve problems that use addition, subtraction, and fair shares (between two or three).</p> <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module A • TG: L01-03 (pp 5-32) • TG: L06-07 (pp 59-76) • TG: L08-22 (pp 77-217) • Developing Number Concepts: Families and Facts Module B • TG: L09 (pp 97-106) • TG: L12-15 (pp 123-158)

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COURSE / COMPETENCY GOAL	NC.2.	The learner will use non-standard units of measure and tell time.
COMPETENCY GOAL / OBJECTIVE	2.01.	For given objects:
OBJECTIVE / EXPECTATION	2.01.a.	Select an attribute (length, capacity, mass) to measure (use non-standard units). <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Up and Down • TG: L01-02 (pp 7-20) • TG: L18-19 (pp 145-156) • Developing Number Concepts: Families and Facts Module B • TG: L03 (pp 25-33)
OBJECTIVE / EXPECTATION	2.01.b.	Develop strategies to estimate size. <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Up and Down • TG: L01-06 (pp 7-42) • Developing Number Concepts: Families and Facts Module B • TG: L03 (pp 25-33)
OBJECTIVE / EXPECTATION	2.01.c.	Compare, using appropriate language, with respect to the attribute selected. <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Up and Down • TG: L19 (pp 151-156) • TG: Post Assessment L18-20 (p 144) • TG: Unit Pre Assessment (pp xxii-xxix)
COMPETENCY GOAL / OBJECTIVE	2.02.	Develop an understanding of the concept of time:
OBJECTIVE / EXPECTATION	2.02.a.	Tell time at the hour and half-hour. <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Up and Down • TG: L15-16 (pp 121-132)
OBJECTIVE / EXPECTATION	2.02.b.	Solve problems involving applications of time (clock and calendar). <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Up and Down • TG: Unit Pre Assessment (pp xxii-xxix) • TG: L13-16 (pp 103-132) • TG: Post Assessment L13-17 (pp 99-101)
COURSE / COMPETENCY GOAL	NC.3.	The learner will identify, describe, draw, and build basic geometric figures.
COMPETENCY GOAL / OBJECTIVE	3.01.	Identify, build, draw and name parallelograms, squares, trapezoids, and hexagons. <ul style="list-style-type: none"> • Developing Geometric Logic: Symmetry and Shapes • TG: Unit Pre Assessment (pp xxiii-xxvii) • TG: L07-12 (pp 53-87) • TG: L16 (pp 111-116) • TG: Post Assessment L07-12 (p 51)

COMPETENCY GOAL / OBJECTIVE	3.02.	Identify, build, and name cylinders, cones, and rectangular prisms. <ul style="list-style-type: none"> • Developing Geometric Logic: Symmetry and Shapes • TG: Unit Pre Assessment (pp xxiii-xxvii) • TG: L01-06 (pp 7-45) • TG: Post Assessment L01-06 (p 5)
COMPETENCY GOAL / OBJECTIVE	3.03.	Compare and contrast geometric figures. <ul style="list-style-type: none"> • Developing Geometric Logic: Symmetry and Shapes • TG: Unit Pre Assessment (pp xxiii-xxvii) • TG: L01-02 (pp 7-22) • TG: L04-07 (pp 29-60) • TG: L09-12 (pp 65-87) • TG: Post Assessment L01-06 (p 5)
COMPETENCY GOAL / OBJECTIVE	3.04.	Solve problems involving spatial visualization. <ul style="list-style-type: none"> • Developing Geometric Logic: Symmetry and Shapes • TG: L08-09 (pp 61-70)
COURSE / COMPETENCY GOAL	NC.4.	The learner will understand and use data and simple probability concepts.
COMPETENCY GOAL / OBJECTIVE	4.01.	Collect, organize, describe and display data using line plots and tallies. <ul style="list-style-type: none"> • Developing Algebraic Thinking: Together and Apart • TG: Unit Pre Assessment (pp xxiv-xxx) • TG: L15-16 (pp 133-146) • TG: Post Assessment L14-16 (p 126)
COMPETENCY GOAL / OBJECTIVE	4.02.	Describe events as certain, impossible, more likely or less likely to occur. <ul style="list-style-type: none"> • Developing Number Concepts: Families and Facts Module B • TG: L18 (pp 175-180) • TG: Post Assessment L15-20 (p 192)
COURSE / COMPETENCY GOAL	NC.5.	The learner will demonstrate an understanding of classification and patterning.
COMPETENCY GOAL / OBJECTIVE	5.01.	Sort and classify objects by two attributes. <ul style="list-style-type: none"> • Developing Algebraic Thinking: Together and Apart • TG: Unit Pre Assessment (pp xxiv-xxx) • TG: L11-20 (pp 99-176) • TG: Post Assessment L11-13 (p 98) • Developing Geometric Logic: Symmetry and Shapes • TG: L02 (pp 17-22) • TG: L04-05 (pp 29-40) • TG: L09-10 (pp 65-76) • TG: L12 (pp 83-87) • Developing Number Concepts: Families and Facts Module B • TG: L09 (pp 97-106)

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<p>COMPETENCY GOAL / OBJECTIVE</p>	<p>5.02.</p>	<p>Use Venn diagrams to illustrate similarities and differences in two sets.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Together and Apart • TG: L14 (pp 127-132)
<p>COMPETENCY GOAL / OBJECTIVE</p>	<p>5.03.</p>	<p>Create and extend patterns, identify the pattern unit, and translate into other forms.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Together and Apart • TG: Unit Pre Assessment (pp xxiv-xxx) • TG: L01-10 (pp 5-94) • TG: Post Assessment L01-03 (p 4) • TG: Post Assessment L04-06 (p 30) • TG: Post Assessment L07-10 (p 60) • Developing Measurement Benchmarks: Up and Down • TG: Unit Pre Assessment (pp xxii-xxix) • TG: Post Assessment L13-17 (pp 99-101) • Developing Number Concepts: Families and Facts Module A • TG: L01-04 (pp 5-40) • TG: L08-09 (pp 77-96) • TG: L11-12 (pp 105-118) • TG: L18-19 (pp 173-190) • Developing Number Concepts: Families and Facts Module B • TG: L04-05 (pp 41-62)

Grade 2 - Mathematics
North Carolina Math 2003 Standards

COURSE / COMPETENCY GOAL	NC.1.	The learner will read, write, model, and compute with whole numbers through 999.
COMPETENCY GOAL / OBJECTIVE	1.01.	Develop number sense for whole numbers through 999.
OBJECTIVE / EXPECTATION	1.01.a.	Connect model, number word, and number using a variety of representations. <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L11-16 (pp 115-173) • TG: Post Assessment L11-16 (pp 174-177) • Developing Number Concepts: More and Less Module B • TG: L07 (pp 61-67)
OBJECTIVE / EXPECTATION	1.01.b.	Read and write numbers. <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L14 (pp 145-156) • TG: L16 (pp 167-173)
OBJECTIVE / EXPECTATION	1.01.c.	Compare and order. <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L13 (pp 135-144) • TG: L15 (pp 157-165) • TG: Post Assessment L11-16 (pp 174-177)
OBJECTIVE / EXPECTATION	1.01.d.	Rename. <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L12 (pp 125-133) • TG: L14 (pp 145-156) • TG: L16 (pp 167-173) • TG: Post Assessment L11-16 (pp 174-177)
OBJECTIVE / EXPECTATION	1.01.e.	Estimate. <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module B • TG: L01-03 (pp 5-31) • TG: Post Assessment L01-03 (p 32)
OBJECTIVE / EXPECTATION	1.01.f.	Use a variety of models to build understanding of place value (ones, tens, hundreds). <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L11-12 (pp 115-133) • TG: L14 (pp 145-156) • TG: L16 (pp 167-173)
COMPETENCY GOAL / OBJECTIVE	1.02.	Use area or region models and set models of fractions to explore part-whole relationships in contexts.

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OBJECTIVE / EXPECTATION	1.02.a.	<p>Represent fractions (halves, thirds, fourths) concretely and symbolically.</p> <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module B • TG: L17 (pp 143-149) • TG: Post Assessment L11-17 (p 150)
OBJECTIVE / EXPECTATION	1.02.b.	<p>Compare fractions (halves, thirds, fourths) using models.</p> <ul style="list-style-type: none"> • Developing Geometric Logic: Rows and Columns • TG: L11 (pp 89-94) • TG: L15 (pp 123-128) • Developing Number Concepts: More and Less Module B • TG: L15 (pp 129-135) • TG: L17 (pp 143-149)
OBJECTIVE / EXPECTATION	1.02.c.	<p>Make different representations of the same fraction.</p> <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module B • TG: L17 (pp 143-149)
OBJECTIVE / EXPECTATION	1.02.d.	<p>Combine fractions to describe parts of a whole.</p> <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module B • TG: L17 (pp 143-149)
COMPETENCY GOAL / OBJECTIVE	1.03.	<p>Create, model, and solve problems that involve addition, subtraction, equal grouping, and division into halves, thirds, and fourths (record in fraction form).</p> <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L01-10 (pp 5-105) • TG: L18-22 (pp 193-236) • Developing Number Concepts: More and Less Module B • TG: L04-11 (pp 37-107) • TG: L15-17 (pp 129-149) • TG: Post Assessment L11-17 (p 150)
COMPETENCY GOAL / OBJECTIVE	1.04.	<p>Develop fluency with multi-digit addition and subtraction through 999 using multiple strategies.</p>
OBJECTIVE / EXPECTATION	1.04.a.	<p>Strategies for adding and subtracting numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L01-10 (pp 5-105) • TG: L17-20 (pp 183-229) • TG: L22 (pp 231-236) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109) • TG: Post Assessment L17-22 (pp 237-241) • Developing Number Concepts: More and Less Module B • TG: L04-05 (pp 37-50) • TG: L07-12 (pp 61-114) • TG: L15-16 (pp 129-142) • TG: Post Assessment L04-10 (pp 94-96)

OBJECTIVE / EXPECTATION	1.04.b.	<p>Estimation of sums and differences in appropriate situations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L13 (pp 135-144) • Developing Number Concepts: More and Less Module B • TG: L11 (pp 101-107) • TG: L14 (pp 121-128)
OBJECTIVE / EXPECTATION	1.04.c.	<p>Relationships between operations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L06-10 (pp 59-105)
COMPETENCY GOAL / OBJECTIVE	1.05.	<p>Create and solve problems using strategies such as modeling, composing and decomposing quantities, using doubles, and making tens and hundreds.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Collecting and Sorting • TG: L02 (pp 11-16) • TG: L10 (pp 81-92) • Developing Number Concepts: More and Less Module A • TG: Post Assessment L17-22 (pp 237-241)
COMPETENCY GOAL / OBJECTIVE	1.06.	<p>Define and recognize odd and even numbers.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Collecting and Sorting • TG: L05 (pp 37-44) • Developing Number Concepts: More and Less Module A • TG: L02-03 (pp 13-30)
COURSE / COMPETENCY GOAL	NC.2.	The learner will recognize and use standard units of metric and customary measurement.
COMPETENCY GOAL / OBJECTIVE	2.01.	Estimate and measure using appropriate units.
OBJECTIVE / EXPECTATION	2.01.a.	<p>Length (meters, centimeters, feet, inches, yards).</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Large and Small • TG: Unit Pre Assessment (pp xxiii-xxviii) • TG: L01-06 (pp 7-48) • TG: Post Assessment L01-07 (p 5)
OBJECTIVE / EXPECTATION	2.01.b.	<p>Temperature (Fahrenheit).</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Large and Small • TG: L12 (pp 101-108)
COMPETENCY GOAL / OBJECTIVE	2.02.	<p>Tell time at the five-minute intervals.</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Large and Small • TG: L15 (pp 125-134)
COURSE / COMPETENCY GOAL	NC.3.	The learner will perform simple transformations.

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COMPETENCY GOAL / OBJECTIVE	3.01.	Combine simple figures to create a given shape. <ul style="list-style-type: none"> • Developing Geometric Logic: Rows and Columns • TG: L11 (pp 89-94)
COMPETENCY GOAL / OBJECTIVE	3.02.	Describe the change in attributes as two- and three-dimensional figures are cut and rearranged. <ul style="list-style-type: none"> • Developing Geometric Logic: Rows and Columns • TG: L06 (pp 47-53) • TG: L11 (pp 89-94)
COMPETENCY GOAL / OBJECTIVE	3.03.	Identify and make:
OBJECTIVE / EXPECTATION	3.03.a.	Symmetric figures. <ul style="list-style-type: none"> • Developing Geometric Logic: Rows and Columns • TG: Unit Pre Assessment (pp xxiii-xxix) • TG: L10-11 (pp 83-94) • TG: Post Assessment L07-12 (pp 59-64)
OBJECTIVE / EXPECTATION	3.03.b.	Congruent figures. <ul style="list-style-type: none"> • Developing Geometric Logic: Rows and Columns • TG: L10 (pp 83-88) • TG: L12 (pp 95-100) • Developing Number Concepts: More and Less Module A • TG: L17 (pp 183-191)
COURSE / COMPETENCY GOAL	NC.4.	The learner will understand and use data and simple probability concepts.
COMPETENCY GOAL / OBJECTIVE	4.01.	Collect, organize, describe and display data using Venn diagrams (three sets) and pictographs where symbols represent multiple units (2's, 5's, 10's). <ul style="list-style-type: none"> • Developing Algebraic Thinking: Collecting and Sorting • TG: L11 (pp 99-108) • TG: L14-18 (pp 129-174) • TG: L20 (pp 183-188)
COMPETENCY GOAL / OBJECTIVE	4.02.	Conduct simple probability experiments; describe the results and make predictions. <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module B • TG: L18-20 (pp 155-172) • TG: Post Assessment L18-20 (p 173)
COURSE / COMPETENCY GOAL	NC.5.	The learner will recognize and represent patterns and simple mathematical relationships.
COMPETENCY GOAL / OBJECTIVE	5.01.	Identify, describe, translate, and extend repeating and growing patterns. <ul style="list-style-type: none"> • Developing Algebraic Thinking: Collecting and Sorting

		<ul style="list-style-type: none"> • TG: Unit Pre Assessment (pp xxiv-xxxiii) • TG: L02-10 (pp 11-92) • TG: Post Assessment L01-04 (p 4) • TG: Post Assessment L05-07 (p 36) • TG: Post Assessment L08-10 (pp 60-62) • Developing Geometric Logic: Rows and Columns • TG: L14 (pp 115-122) • Developing Number Concepts: More and Less Module A • TG: L04-05 (pp 31-51) • TG: L11-12 (pp 115-133) • TG: L17 (pp 183-191) • TG: L20-22 (pp 213-236) • Developing Number Concepts: More and Less Module B • TG: L13-15 (pp 115-135)
<p>COMPETENCY GOAL / OBJECTIVE</p>	<p>5.02.</p>	<p>Write addition and subtraction number sentences to represent a problem; use symbols to represent unknown quantities.</p> <ul style="list-style-type: none"> • Developing Number Concepts: More and Less Module A • TG: L01-10 (pp 5-105) • TG: L13 (pp 135-144) • TG: L15 (pp 157-165) • TG: L18-19 (pp 193-211) • TG: L21-22 (pp 221-236) • TG: Post Assessment L01-05 (pp 52-54) • TG: Post Assessment L06-10 (pp 106-109) • Developing Number Concepts: More and Less Module B • TG: L04 (pp 37-44) • TG: L08 (pp 69-77) • TG: L10 (pp 89-93)

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**Grade 3 - Mathematics
North Carolina Math 2003 Standards**

COURSE / COMPETENCY GOAL	NC.1.	The learner will model, identify, and compute with whole numbers through 9,999.
COMPETENCY GOAL / OBJECTIVE	1.01.	Develop number sense for whole numbers through 9,999.
OBJECTIVE / EXPECTATION	1.01.a.	<p>Connect model, number word, and number using a variety of representations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • 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) • Developing Number Concepts: Ordering and Arranging Module B • TG: L05-07 (pp 47-71)
OBJECTIVE / EXPECTATION	1.01.b.	<p>Build understanding of place value (ones through thousands).</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • TG: L09-14 (pp 91-143) • TG: Post Assessment L09-14 (pp 144-145) • Developing Number Concepts: Ordering and Arranging Module B • TG: L06 (pp 57-64)
OBJECTIVE / EXPECTATION	1.01.c.	<p>Compare and order.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • TG: L13-14 (pp 127-143) • TG: Post Assessment L09-14 (pp 144-145)
COMPETENCY GOAL / OBJECTIVE	1.02.	Develop fluency with multi-digit addition and subtraction through 9,999 using:
OBJECTIVE / EXPECTATION	1.02.a.	<p>Strategies for adding and subtracting numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • 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) • TG: Post Assessment L15-24 (pp 244-246)
OBJECTIVE / EXPECTATION	1.02.b.	<p>Estimation of sums and differences in appropriate situations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • TG: L16 (pp 161-170)
OBJECTIVE / EXPECTATION	1.02.c.	<p>Relationships between operations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • TG: L02-03 (pp 19-42)

		<ul style="list-style-type: none"> • TG: Post Assessment L01-08 (pp 84-86)
COMPETENCY GOAL / OBJECTIVE	1.03.	Develop fluency with multiplication from 1x1 to 12x12 and division up to two-digit by one-digit numbers using:
OBJECTIVE / EXPECTATION	1.03.a.	<p>Strategies for multiplying and dividing numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • TG: L06-08 (pp 61-83) • TG: L25-30 (pp 251-301) • TG: Post Assessment L01-08 (pp 84-86) • TG: Post Assessment L25-30 (pp 302-304)
OBJECTIVE / EXPECTATION	1.03.b.	<p>Estimation of products and quotients in appropriate situations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • TG: L27 (pp 269-277) • TG: L29 (pp 285-294)
OBJECTIVE / EXPECTATION	1.03.c.	<p>Relationships between operations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • TG: L28 (pp 277-285)
COMPETENCY GOAL / OBJECTIVE	1.04.	<p>Use basic properties (identity, commutative, associative, order of operations) for addition, subtraction, multiplication, and division.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module A • TG: L15-16 (pp 151-170)
COMPETENCY GOAL / OBJECTIVE	1.05.	Use area or region models and set models of fractions to explore part-whole relationships.
OBJECTIVE / EXPECTATION	1.05.a.	<p>Represent fractions concretely and symbolically (halves, fourths, thirds, sixths, eighths).</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module B • TG: L01-05 (pp 5-55) • TG: L07 (pp 65-71) • TG: Post Assessment L01-04 (pp 40-41)
OBJECTIVE / EXPECTATION	1.05.b.	<p>Compare and order fractions (halves, fourths, thirds, sixths, eighths) using models and benchmark numbers (zero, one-half, one); describe comparisons.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module B • TG: L02-04 (pp 13-39)
OBJECTIVE / EXPECTATION	1.05.c.	<p>Model and describe common equivalents, especially relationships among halves, fourths, and eighths, and thirds and sixths.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module B • TG: L04 (pp 31-39) • TG: Post Assessment L01-04 (pp 40-41)

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OBJECTIVE / EXPECTATION	1.05.d.	Understand that the fractional relationships that occur between zero and one also occur between every two consecutive whole numbers. <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module B • TG: L01-05 (pp 5-55) • TG: Post Assessment L01-04 (pp 40-41)
OBJECTIVE / EXPECTATION	1.05.e.	Understand and use mixed numbers and their equivalent fraction forms. <ul style="list-style-type: none"> • Developing Number Concepts: Ordering and Arranging Module B • TG: L02-04 (pp 13-39) • TG: Post Assessment L01-04 (pp 40-41)
COMPETENCY GOAL / OBJECTIVE	1.06.	Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil. <ul style="list-style-type: none"> • Developing Algebraic Thinking: Plotting and Growing • TG: L03 (pp 35-44) • TG: L11 (pp 123-134) • Developing Number Concepts: Ordering and Arranging Module A • TG: L01-30 (pp 5-301) • TG: Post Assessment L25-30 (pp 302-304) • Developing Number Concepts: Ordering and Arranging Module B • TG: L01-20 (pp 5-192)
COURSE / COMPETENCY GOAL	NC.2.	The learner will recognize and use standard units of metric and customary measurement.
COMPETENCY GOAL / OBJECTIVE	2.01.	Solve problems using measurement concepts and procedures involving:
OBJECTIVE / EXPECTATION	2.01.a.	Elapsed time. <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Scales and Balances • TG: L12-14 (pp 103-126)
OBJECTIVE / EXPECTATION	2.01.b.	Equivalent measures within the same measurement system. <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Scales and Balances • TG: L06 (pp 47-54)
COMPETENCY GOAL / OBJECTIVE	2.02.	Estimate and measure using appropriate units.
OBJECTIVE / EXPECTATION	2.02.a.	Capacity (cups, pints, quarts, gallons, liters). <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Scales and Balances • TG: Unit Pre Assessment (pp xxiii-xxvi) • TG: L10 (pp 81-88) • TG: L16-17 (pp 141-154) • TG: Post Assessment L16-20 (p 139)
OBJECTIVE / EXPECTATION	2.02.b.	Length (miles, kilometers)

		<ul style="list-style-type: none"> • Developing Measurement Benchmarks: Scales and Balances • TG: Unit Pre Assessment (pp xxiii-xxvi) • TG: L01-06 (pp 7-54) • TG: L10 (pp 81-88) • TG: Post Assessment L01-06 (pp 5-6) • Developing Number Concepts: Ordering and Arranging Module B • TG: L02 (pp 13-20)
OBJECTIVE / EXPECTATION	2.02.c.	<p>Mass (ounces, pounds, grams, kilograms).</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Scales and Balances • TG: Unit Pre Assessment (pp xxiii-xxvi) • TG: L18-19 (pp 155-168) • TG: Post Assessment L16-20 (p 139)
OBJECTIVE / EXPECTATION	2.02.d.	<p>Temperature (Fahrenheit, Celsius).</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Scales and Balances • TG: L15 (pp 127-134) • Developing Number Concepts: Ordering and Arranging Module A • TG: L04-05 (pp 47-60)
COURSE / COMPETENCY GOAL	NC.3.	The learner will recognize and use basic geometric properties of two- and three-dimensional figures.
COMPETENCY GOAL / OBJECTIVE	3.01.	<p>Use appropriate vocabulary to compare, describe, and classify two- and three-dimensional figures.</p> <ul style="list-style-type: none"> • Developing Geometric Logic: Shapes and Paths • TG: Unit Pre Assessment (pp xxiv-xxiii) • TG: L01 (pp 7-14) • TG: L03-09 (pp 23-97) • TG: Post Assessment L05-07 (pp 44-45)
COMPETENCY GOAL / OBJECTIVE	3.02.	Use a rectangular coordinate system to solve problems.
OBJECTIVE / EXPECTATION	3.02.a.	<p>Graph and identify points with whole number and/or letter coordinates.</p> <ul style="list-style-type: none"> • Developing Geometric Logic: Shapes and Paths • TG: Unit Pre Assessment (pp xxiv-xxiii) • TG: L20 (pp 195-201) • TG: Post Assessment L16-20 (pp 162-163)
OBJECTIVE / EXPECTATION	3.02.b.	<p>Describe the path between given points on the plane.</p> <ul style="list-style-type: none"> • Developing Geometric Logic: Shapes and Paths • TG: L18-20 (pp 181-201)
COURSE / COMPETENCY GOAL	NC.4.	The learner will understand and use data and simple probability concepts.
COMPETENCY GOAL / OBJECTIVE	4.01.	<p>Collect, organize, analyze, and display data (including circle graphs and tables) to solve problems.</p> <ul style="list-style-type: none"> • Developing Geometric Logic: Shapes and Paths

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		<ul style="list-style-type: none"> TG: L02-03 (pp 15-31)
COMPETENCY GOAL / OBJECTIVE	4.02.	<p>Determine the number of permutations and combinations of up to three items.</p> <ul style="list-style-type: none"> Developing Number Concepts: Ordering and Arranging Module B TG: L19 (pp 179-184)
COMPETENCY GOAL / OBJECTIVE	4.03.	<p>Solve probability problems using permutations and combinations.</p> <ul style="list-style-type: none"> Developing Number Concepts: Ordering and Arranging Module B TG: L19 (pp 179-184)
COURSE / COMPETENCY GOAL	NC.5.	The learner will recognize, determine, and represent patterns and simple mathematical relationships.
COMPETENCY GOAL / OBJECTIVE	5.01.	<p>Describe and extend numeric and geometric patterns.</p> <ul style="list-style-type: none"> Developing Algebraic Thinking: Plotting and Growing TG: Unit Pre Assessment (pp xxiv-xxxviii) TG: L03-04 (pp 35-56) TG: L06 (pp 69-76) TG: L08-09 (pp 87-112) 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) Developing Number Concepts: Ordering and Arranging Module A TG: L09 (pp 91-100)
COMPETENCY GOAL / OBJECTIVE	5.02.	<p>Extend and find missing terms of repeating and growing patterns.</p> <ul style="list-style-type: none"> Developing Algebraic Thinking: Plotting and Growing TG: Unit Pre Assessment (pp xxiv-xxxviii) 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) Developing Number Concepts: Ordering and Arranging Module A TG: L09 (pp 91-100)
COMPETENCY GOAL / OBJECTIVE	5.03.	<p>Use symbols to represent unknown quantities in number sentences.</p> <ul style="list-style-type: none"> Developing Number Concepts: Ordering and Arranging Module A TG: L03-05 (pp 33-60) TG: L25-28 (pp 251-285) TG: Post Assessment L01-08 (pp 84-86)
COMPETENCY GOAL / OBJECTIVE	5.04.	<p>Find the value of the unknown in a number sentence.</p> <ul style="list-style-type: none"> Developing Number Concepts: Ordering and Arranging Module A TG: L03-05 (pp 33-60) TG: L25-28 (pp 251-285) TG: Post Assessment L01-08 (pp 84-86)

Grade 4 - Mathematics
North Carolina Math 2003 Standards

COURSE / COMPETENCY GOAL	NC.1.	The learner will read, write, model, and compute with nonnegative rational numbers.
COMPETENCY GOAL / OBJECTIVE	1.01.	Develop number sense for rational numbers 0.01 through 99,999.
OBJECTIVE / EXPECTATION	1.01.a.	<p>Connect model, number word, and number using a variety of representations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L08-12 (pp 73-106) • TG: Post Assessment L08-12 (pp 107-110) • Developing Number Concepts: Stories and Statements Module B • TG: L01-03 (pp 5-28) • TG: L05-09 (pp 43-82) • TG: L11-13 (pp 97-124) • TG: Post Assessment L01-03 (pp 29-30)
OBJECTIVE / EXPECTATION	1.01.b.	<p>Build understanding of place value (hundredths through ten thousands).</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L08-10 (pp 73-96) • TG: Post Assessment L08-12 (pp 107-110) • Developing Number Concepts: Stories and Statements Module B • 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)
OBJECTIVE / EXPECTATION	1.01.c.	<p>Compare and order rational numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module B • TG: L01-02 (pp 5-20) • TG: L06 (pp 51-59) • TG: L08-09 (pp 67-82) • TG: Post Assessment L04-09 (pp 83-84) • TG: Post Assessment L10-12 (p 114)
OBJECTIVE / EXPECTATION	1.01.d.	<p>Make estimates of rational numbers in appropriate situations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L13-16 (pp 115-150) • Developing Number Concepts: Stories and Statements Module B • TG: L10-13 (pp 89-124) • TG: Post Assessment L10-12 (p 114)
COMPETENCY GOAL / OBJECTIVE	1.02.	Develop fluency with multiplication and division.
OBJECTIVE / EXPECTATION	1.02.a.	<p>Two-digit by two-digit multiplication (larger numbers with calculator).</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L06-07 (pp 49-62) • TG: L19 (pp 175-184)

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		<ul style="list-style-type: none"> • 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)
OBJECTIVE / EXPECTATION	1.02.b.	<p>Up to three-digit by two-digit division (larger numbers with calculator).</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L29 (pp 265-272)
OBJECTIVE / EXPECTATION	1.02.c.	<p>Strategies for multiplying and dividing numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L05-07 (pp 39-62) • TG: L19-30 (pp 175-278) • TG: Post Assessment L01-07 (pp 63-67) • TG: Post Assessment L19-30 (pp 273-278)
OBJECTIVE / EXPECTATION	1.02.d.	<p>Estimation of products and quotients in appropriate situations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L21-22 (pp 193-210) • TG: L24-26 (pp 217-250) • TG: L29 (pp 265-272)
OBJECTIVE / EXPECTATION	1.02.e.	<p>Relationships between operations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L26 (pp 241-250)
COMPETENCY GOAL / OBJECTIVE	1.03.	<p>Solve problems using models, diagrams, and reasoning about fractions and relationships among fractions involving halves, fourths, eighths, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module B • TG: L01-03 (pp 5-28) • TG: L09 (pp 75-82) • TG: L13 (pp 119-124) • TG: Post Assessment L01-03 (pp 29-30)
COMPETENCY GOAL / OBJECTIVE	1.04.	<p>Develop fluency with addition and subtraction of non-negative rational numbers with like denominators, including decimal fractions through hundredths.</p>
OBJECTIVE / EXPECTATION	1.04.a.	<p>Develop and analyze strategies for adding and subtracting numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module B • TG: L02-03 (pp 13-28) • TG: L11-12 (pp 97-113) • TG: L14-15 (pp 125-140)
OBJECTIVE / EXPECTATION	1.04.b.	<p>Estimate sums and differences.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module B • TG: L11-12 (pp 97-113)

		<ul style="list-style-type: none"> • TG: L14 -15(pp 125-140) • TG: Post Assessment L13-15 (pp 141-142)
OBJECTIVE / EXPECTATION	1.04.c.	<p>Judge the reasonableness of solutions.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module B • TG: L11-12 (pp 97-114)
COMPETENCY GOAL / OBJECTIVE	1.05.	<p>Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: Unit Pre Assessment (pp xxiii-xxxiii) • TG: L13 (pp 129-136) • TG: L16 (pp 161-174) • TG: Post Assessment L17-20 (p 178) • Developing Number Concepts: Stories and Statements Module A • TG: L01-30 (pp 5-278) • TG: Post Assessment L13-18 (pp 165-170) • Developing Number Concepts: Stories and Statements Module B • TG: L01-24 (pp 5-227)
COURSE / COMPETENCY GOAL	NC.2.	The learner will understand and use perimeter and area.
COMPETENCY GOAL / OBJECTIVE	2.01.	<p>Develop strategies to determine the area of rectangles and the perimeter of plane figures.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: L06 (pp 63-70) • Developing Geometric Logic: Corners and Containers • TG: L11-12 (pp 101-114) • Developing Measurement Benchmarks: Inside and Outside • TG: Unit Pre Assessment (pp xxiii-xxviii) • TG: L05 (pp 51-60) • TG: L07 (pp 75-84) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-10 (pp 72-73)
COMPETENCY GOAL / OBJECTIVE	2.02.	<p>Solve problems involving perimeter of plane figures and areas of rectangles.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: L06 (pp 63-70) • Developing Geometric Logic: Corners and Containers • TG: L11-12 (pp 101-114) • Developing Measurement Benchmarks: Inside and Outside • TG: Unit Pre Assessment (pp xxiii-xxviii) • TG: L05-08 (pp 51-94) • TG: Post Assessment L01-06 (pp 5-6) • TG: Post Assessment L07-10 (pp 72-73)
COURSE / COMPETENCY GOAL	NC.3.	The learner will recognize and use geometric properties and relationships.

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COMPETENCY GOAL / OBJECTIVE	3.01.	Use the coordinate system to describe the location and relative position of points and draw figures in the first quadrant. <ul style="list-style-type: none"> • Developing Geometric Logic: Corners and Containers • TG: L19 (pp 175-178)
COMPETENCY GOAL / OBJECTIVE	3.02.	Describe the relative position of lines using concepts of parallelism and perpendicularity. <ul style="list-style-type: none"> • Developing Geometric Logic: Corners and Containers • TG: L06 (pp 57-63)
COMPETENCY GOAL / OBJECTIVE	3.03.	Identify, predict, and describe the results of transformations of plane figures.
OBJECTIVE / EXPECTATION	3.03.a.	Reflections. <ul style="list-style-type: none"> • Developing Geometric Logic: Corners and Containers • TG: Unit Pre Assessment (pp xxiv-xxxii) • TG: L13-14 (pp 121-137) • TG: L16 (pp 145-152) • TG: Post Assessment L13-16 (pp 118-119)
OBJECTIVE / EXPECTATION	3.03.b.	Translations. <ul style="list-style-type: none"> • Developing Geometric Logic: Corners and Containers • TG: L13 (pp 121-129) • TG: L16 (pp 145-152)
OBJECTIVE / EXPECTATION	3.03.c.	Rotations. <ul style="list-style-type: none"> • Developing Geometric Logic: Corners and Containers • TG: Unit Pre Assessment (pp xxiv-xxxii) • TG: L13 (pp 121-129) • TG: L15-16 (pp 139-152) • TG: Post Assessment L13-16 (pp 118-119)
COURSE / COMPETENCY GOAL	NC.4.	The learner will understand and use graphs, probability, and data analysis.
COMPETENCY GOAL / OBJECTIVE	4.01.	Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems. <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: Unit Pre Assessment (pp xxiii-xxxiii) • TG: L11-13 (pp 113-136) • TG: L17-20 (pp 179-204) • TG: Post Assessment L11-13 (pp 110-111)
COMPETENCY GOAL / OBJECTIVE	4.02.	Describe the distribution of data using median, range and mode. <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: Unit Pre Assessment (pp xxiii-xxxiii) • TG: L14-15 (pp 143-160)

		<ul style="list-style-type: none"> • TG: Post Assessment L14-16 (pp 140-141)
COMPETENCY GOAL / OBJECTIVE	4.03.	<p>Solve problems by comparing two sets of related data.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: L16-17 (pp 161-184)
COMPETENCY GOAL / OBJECTIVE	4.04.	<p>Design experiments and list all possible outcomes and probabilities for an event.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module B • TG: L19-22 (pp 177-212) • TG: Post Assessment L19-21 (p 199) • TG: Post Assessment L22-24 (p 228)
COURSE / COMPETENCY GOAL	NC.5.	The learner will demonstrate an understanding of mathematical relationships.
COMPETENCY GOAL / OBJECTIVE	5.01.	Identify, describe, and generalize relationships in which:
OBJECTIVE / EXPECTATION	5.01.a.	<p>Quantities change proportionally.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: L04-06 (pp 43-70)
OBJECTIVE / EXPECTATION	5.01.b.	<p>Change in one quantity relates to change in a second quantity.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: L04-10 (pp 43-106)
COMPETENCY GOAL / OBJECTIVE	5.02.	<p>Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Signs and Symbols • TG: Unit Pre Assessment (pp xxiii-xxxiii) • 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)
COMPETENCY GOAL / OBJECTIVE	5.03.	Verify mathematical relationships using:
OBJECTIVE / EXPECTATION	5.03.a.	<p>Models, words, and numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Stories and Statements Module A • TG: L22 (pp 203-210) • Developing Number Concepts: Stories and Statements Module B • TG: L01-03 (pp 5-28) • TG: L06 (pp 51-59)

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OBJECTIVE / EXPECTATION	5.03.b.	Order of operations and the identity, commutative, associative, and distributive properties. <ul style="list-style-type: none">• Developing Number Concepts: Stories and Statements Module A• TG: L01-02 (pp 5-22)• TG: L04-07 (pp 31-62)
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Grade 5 - Mathematics
North Carolina Math 2003 Standards

COURSE / COMPETENCY GOAL	NC.1.	The learner will understand and compute with nonnegative rational numbers.
COMPETENCY GOAL / OBJECTIVE	1.01.	Develop number sense for rational numbers 0.001 through 999,999.
OBJECTIVE / EXPECTATION	1.01.a.	<p>Connect model, number word, and number using a variety of representations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Values and Variables Module A • TG: L09-14 (pp 85-132) • TG: L16 (pp 149-158) • TG: L19 (pp 175-180) • TG: L21-23 (pp 195-220) • Developing Number Concepts: Values and Variables Module B • TG: L05-07 (pp 47-72) • TG: L10-13 (pp 87-122)
OBJECTIVE / EXPECTATION	1.01.b.	<p>Build understanding of place value (thousandths through hundred thousands).</p> <ul style="list-style-type: none"> • Developing Number Concepts: Values and Variables Module A • TG: L09 (pp 85-92) • TG: L16 (pp 149-158) • TG: Post Assessment L09-14 (pp 133-134)
OBJECTIVE / EXPECTATION	1.01.c.	<p>Compare and order rational numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Values and Variables Module A • TG: L12-14 (pp 111-132) • TG: Post Assessment L09-14 (pp 133-134) • Developing Number Concepts: Values and Variables Module B • TG: L01-16 (pp 5-144) • TG: Post Assessment L05-12 (pp 110-111)
OBJECTIVE / EXPECTATION	1.01.d.	<p>Make estimates of rational numbers in appropriate situations.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Values and Variables Module B • TG: L09 (pp 81-86) • TG: L13-16 (pp 117-144)
COMPETENCY GOAL / OBJECTIVE	1.02.	Develop fluency in adding and subtracting non-negative rational numbers (halves, fourths, eighths; thirds, sixths, twelfths; fifths, tenths, hundredths, thousandths; mixed numbers).
OBJECTIVE / EXPECTATION	1.02.a.	<p>Develop and analyze strategies for adding and subtracting numbers.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Values and Variables Module A • TG: L16-17 (pp 149-166) • TG: L19-20 (pp 175-188) • TG: Post Assessment L15-20 (pp 189-190) • Developing Number Concepts: Values and Variables Module B • TG: L09-15 (pp 81-135) • TG: Post Assessment L05-12 (pp 110-111)

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		<ul style="list-style-type: none"> TG: Post Assessment L17-19 (pp 172-173)
OBJECTIVE / EXPECTATION	1.02.b.	<p>Estimate sums and differences.</p> <ul style="list-style-type: none"> Developing Number Concepts: Values and Variables Module A TG: L16-17 (pp 149-166) Developing Number Concepts: Values and Variables Module B TG: L09-10 (pp 81-93)
OBJECTIVE / EXPECTATION	1.02.c.	<p>Judge the reasonableness of solutions.</p> <ul style="list-style-type: none"> Developing Number Concepts: Values and Variables Module A TG: L15-27 (pp 139-257)
COMPETENCY GOAL / OBJECTIVE	1.03.	<p>Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.</p> <ul style="list-style-type: none"> Developing Algebraic Thinking: Steps and Distance TG: L05 (pp 47-54) TG: L15 (pp 143-150) TG: L17 (pp 165-174) Developing Number Concepts: Values and Variables Module A TG: L01-04 (pp 5-44) TG: L17 (pp 159-166) TG: L23 (pp 215-220) TG: Post Assessment L15-20 (pp 189-190)
COURSE / COMPETENCY GOAL	NC.2.	The learner will recognize and use standard units of metric and customary measurement.
COMPETENCY GOAL / OBJECTIVE	2.01.	<p>Estimate the measure of an object in one system given the measure of that object in another system.</p> <ul style="list-style-type: none"> Developing Measurement Benchmarks: Tools and Time TG: L16-20 (pp 135-162)
COMPETENCY GOAL / OBJECTIVE	2.02.	<p>Identify, estimate, and measure the angles of plane figures using appropriate tools.</p> <ul style="list-style-type: none"> Developing Geometric Logic: Conjectures and Transformations TG: L09 (pp 85-93) Developing Number Concepts: Values and Variables Module A TG: Post Assessment L28-30 (p 288)
COURSE / COMPETENCY GOAL	NC.3.	The learner will understand and use properties and relationships of plane figures.
COMPETENCY GOAL / OBJECTIVE	3.01.	<p>Identify, define, describe, and accurately represent triangles, quadrilaterals, and other polygons.</p> <ul style="list-style-type: none"> Developing Geometric Logic: Conjectures and Transformations TG: L06-07 (pp 59-78) TG: L09 (pp 85-93)

COMPETENCY GOAL / OBJECTIVE	3.02.	Make and test conjectures about polygons involving:
OBJECTIVE / EXPECTATION	3.02.a.	Sum of the measures of interior angles. <ul style="list-style-type: none"> • Developing Geometric Logic: Conjectures and Transformations • TG: Unit Pre Assessment (pp xxii-xxx) • TG: L08-09 (pp 79-93) • TG: L11 (pp 107-114) • TG: Post Assessment L06-10 (pp 55-57)
OBJECTIVE / EXPECTATION	3.02.b.	Lengths of sides and diagonals. <ul style="list-style-type: none"> • Developing Geometric Logic: Conjectures and Transformations • TG: L07 (pp 71-78) • TG: L12 (pp 115-122) • TG: L17 (pp 165-171)
OBJECTIVE / EXPECTATION	3.02.c.	Parallelism and perpendicularity of sides and diagonals. <ul style="list-style-type: none"> • Developing Geometric Logic: Conjectures and Transformations • TG: L07 (pp 71-78) • TG: L12 (pp 115-122) • TG: L17 (pp 165-171)
COMPETENCY GOAL / OBJECTIVE	3.03.	Classify plane figures according to types of symmetry (line, rotational). <ul style="list-style-type: none"> • Developing Geometric Logic: Conjectures and Transformations • TG: Unit Pre Assessment (pp xxii-xxx) • TG: L15-16 (pp 143-157)
COMPETENCY GOAL / OBJECTIVE	3.04.	Solve problems involving the properties of triangles, quadrilaterals, and other polygons.
OBJECTIVE / EXPECTATION	3.04.a.	Sum of the measures of interior angles. <ul style="list-style-type: none"> • Developing Geometric Logic: Conjectures and Transformations • TG: Unit Pre Assessment (pp xxii-xxx) • TG: L08-09 (pp 79-93) • TG: L11 (pp 107-114) • TG: Post Assessment L06-10 (pp 55-57)
OBJECTIVE / EXPECTATION	3.04.b.	Lengths of sides and diagonals. <ul style="list-style-type: none"> • Developing Geometric Logic: Conjectures and Transformations • TG: Unit Pre Assessment (pp xxii-xxx) • TG: Post Assessment L11-13 (p 106) • Developing Measurement Benchmarks: Tools and Time • TG: Unit Pre Assessment (pp xxii-xxix) • TG: L05-06 (pp 45-60) • TG: Post Assessment L05-10 (pp 43-44)
OBJECTIVE / EXPECTATION	3.04.c.	Parallelism and perpendicularity of sides and diagonals.

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		<ul style="list-style-type: none"> • Developing Geometric Logic: Conjectures and Transformations • TG: L07 (pp 71-78)
COURSE / COMPETENCY GOAL	NC.4.	The learner will understand and use graphs and data analysis.
COMPETENCY GOAL / OBJECTIVE	4.01.	<p>Collect, organize, analyze, and display data (including stem-and-leaf plots) to solve problems.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Steps and Distance • TG: Unit Pre Assessment (pp xxiii-xxxiii) • TG: L19 (pp 183-190) • TG: Post Assessment L17-20 (pp 162-163)
COMPETENCY GOAL / OBJECTIVE	4.02.	<p>Compare and contrast different representations of the same data; discuss the effectiveness of each representation.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Steps and Distance • TG: L13 (pp 121-130) • TG: L17 (pp 165-174) • TG: L19 (pp 183-190)
COMPETENCY GOAL / OBJECTIVE	4.03.	<p>Solve problems with data from a single set or multiple sets of data using median, range, and mode.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Steps and Distance • TG: Unit Pre Assessment (pp xxiii-xxxiii) • 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)
COURSE / COMPETENCY GOAL	NC.5.	The learner will demonstrate an understanding of patterns, relationships, and elementary algebraic representation.
COMPETENCY GOAL / OBJECTIVE	5.01.	<p>Describe, extend, and generalize numeric and geometric patterns using tables, graphs, words, and symbols.</p> <ul style="list-style-type: none"> • Developing Algebraic Thinking: Steps and Distance • TG: Unit Pre Assessment (pp xxiii-xxxiii) • 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) • Developing Number Concepts: Values and Variables Module A • TG: L09 (pp 85-92) • TG: L24-25 (pp 221-240) • TG: L28-29 (pp 265-280)
COMPETENCY GOAL / OBJECTIVE	5.02.	<p>Use algebraic expressions, patterns, and one-step equations and inequalities to solve problems.</p> <ul style="list-style-type: none"> • Developing Number Concepts: Values and Variables Module A • TG: L01-03 (pp 5-34)

		<ul style="list-style-type: none"> • TG: L07 (pp 63-72)
COMPETENCY GOAL / OBJECTIVE	5.03.	<p>Identify, describe, and analyze situations with constant or varying rates of change.</p> <ul style="list-style-type: none"> • Developing Measurement Benchmarks: Tools and Time • TG: L14-15 (pp 115-128)

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