

Fourth Grade Pacing Guide, 2016-2017 – Year-Round

FIRST NINE WEEKS	Month	English Language Arts	Math	Science	Social Studies
	July	<p>Unit 1: Emotions and My Body</p> <p>RL.4.1/RI.4.1: Determine what the text says (inference/ evidence) RL.4.3/RI.4.3: Analyze text structure (individuals/events/ ideas) RL.4.7/RI.4.7: Integrate and evaluate content in diverse media W.4.1a-b: Write opinion pieces and provide reasons that are supported by facts and details. W.4.4: Writing production; clear/coherent writing W.4.5: Develop and strengthen writing (plan/revise/edit) W.4.6: Produce, publish writing SL.4.1a-d: Conversation and collaboration SL.4.4: Present information SL.4.5: Understanding of presentations L.4.1a-c: Conventions of standard English-grammar (relative pronouns and adverbs; progressive verb tenses; modular auxiliaries) L.4.4a-c: Determine/clarify meaning of words (use context clues, affixes, and roots to determine meaning; use reference materials) RF.4.3a: Phonics and word recognition (letter-sound correspondences/syllabication patterns/morphology) RF.4.4a,c: Fluency</p>	<p>Unit 1: Number Sense – Base Ten</p> <p>4.NBT.1: Recognize ones, tens, hundreds, etc. places in multi-digit whole numbers. 4.NBT.2: Read, write, and compare multi-digit whole numbers.</p>	<p>Science Safety</p> <p>Students will identify and apply basic science classroom safety rules and procedures.</p>	<p>Unit 1: Fight For Your Rights</p> <p>4.H.2: Understand how notable structures, symbols, and place names are significant to North Carolina.</p> <ul style="list-style-type: none"> 4.H.2.1: Explain why important buildings, statues, monuments, and place names are associated with the state's history. 4.H.2.2: Explain the historical significance of North Carolina's state symbols. <p>4.G.1: Understand how human, environmental, and technological factors affect the growth and development of North Carolina.</p> <ul style="list-style-type: none"> 4.G.1.1: Summarize changes that have occurred in North Carolina since statehood (population growth, transportation, communication, and land use). <p>4.E.1: Understand how a market economy impacts life in North Carolina.</p> <ul style="list-style-type: none"> 4.E.1.3: Analyze the historical and contemporary role that major North Carolina industries have played in the state, nation, and world. <p>4.C&G.1: Understand the development, structure, and function of North Carolina's government.</p> <ul style="list-style-type: none"> 4.C&G.1.1: Summarize the key principles and revisions of the North Carolina Constitution. <p>4.C&G.2: Analyze the North Carolina Constitution.</p> <ul style="list-style-type: none"> 4.C&G.2.3: Differentiate between rights and responsibilities reflected in the North Carolina Constitution. <p>4.C.1: Understand the impact of various cultural groups on North Carolina.</p> <ul style="list-style-type: none"> 4.C.1.2: Explain how the artistic expression of various groups represents the cultural heritage of North Carolina.
	<p>Unit 2: The Geography of Weather</p> <p>RL.4.2/RI.4.2: Central ideas/themes/summary RL.4.4/RI.4.4: Interpret words and phrases (word choice) RL.4.5/RI.4.5: Analyze the structure of text RI.4.8: Explain how an author uses reasons and evidence to support particular points in a text. W.4.2a,b: Write to inform/explain (organize; supply facts, definitions, details, etc. to support) W.4.5: Develop and strengthen writing (plan/revise/edit) W.4.7: Research projects SL.4.2: Integrate and evaluate information in diverse media SL.4.6: Adapt speech/ command of formal English</p>		<p>Matter: Properties and Change</p> <p>4.P.2.1: Compare the physical properties of samples of matter.</p> <p>4.P.2.2: Explain how minerals are identified using tests for the physical properties of hardness, color, luster, cleavage, and streak.</p>		
				August	
September	<p>Unit 2: The Geography of Weather</p> <p>RL.4.2/RI.4.2: Central ideas/themes/summary RL.4.4/RI.4.4: Interpret words and phrases (word choice) RL.4.5/RI.4.5: Analyze the structure of text RI.4.8: Explain how an author uses reasons and evidence to support particular points in a text. W.4.2a,b: Write to inform/explain (organize; supply facts, definitions, details, etc. to support) W.4.5: Develop and strengthen writing (plan/revise/edit) W.4.7: Research projects SL.4.2: Integrate and evaluate information in diverse media SL.4.6: Adapt speech/ command of formal English</p>		<p>Unit 2: Multiplication and Division</p> <p>4.OA.1: Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. 4.OA.2: Multiply or divide to solve word problems involving multiplicative comparison. <i>1st qtr. focus: use multiplication to solve multiplicative comparison problems.</i> 4.OA.3: Solve multi-step word problems with whole numbers, including problems in which remainders must be interpreted. Represent using equations with a letter for the unknown. <i>1st qtr. Focus: solve multi-step problems using addition, subtraction, and multiplication.</i> 4.NBT.5: Multiply a whole number of up to four digits by a one-digit whole number, and multiply 2 two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>	<p>Matter: Properties and Change</p> <p>4.P.2.1: Compare the physical properties of samples of matter.</p> <p>4.P.2.2: Explain how minerals are identified using tests for the physical properties of hardness, color, luster, cleavage, and streak.</p>	

SECOND NINE WEEKS	Month	English Language Arts		Math		Science		Social Studies		
	October	Unit 2: The Geography of Weather	L.4.1d-g: Conventions of standard English-grammar (adjectives, prepositional phrases, complete sentences) L.4.4a-c: Determine/clarify meaning of words (use context clues and affixes and roots to determine meaning; use reference materials) RF.4.3a: Phonics and word recognition (letter-sound correspondences/syllabication patterns/morphology) RF.4.4a,c: Fluency	Unit 2: Multiplication and Division	4.NBT.6: Find whole number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. 4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison. 4.OA.3: Use the four operations to solve multistep word problems posed with whole numbers and having whole number answers. 4.OA.4: Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is prime or composite.	Matter: Properties and Change	4.P.2.3: Classify rocks as metamorphic, sedimentary, or igneous based on their composition, how they are formed, and the processes that create them.	Unit 2: More Money, More Problems, More Technology	4.H.1: Analyze the chronology of key historical events in North Carolina history. • 4.H.1.1: Summarize the change in cultures, everyday life, and status of indigenous American Indian groups in North Carolina before and after European exploration. • 4.H.1.3: Explain how people, events, and developments brought about changes to communities in various regions of North Carolina.	
	November		RL.4.1/RI.4.1: Determine what the text says – inference/ evidence RL.4.3/RI.4.3: Analyze text structure (individuals/events/ ideas) RL.4.4/RI.4.4: Interpret words and phrases (word choice) RI.4.8: Explain how an author uses reasons and evidence to support particular points in a text. W.4.1c-d: Write opinion pieces (use modal auxiliaries; order adjectives) W.4.7: Research projects W.4.9: Draw evidence (write to sources) SL.4.1: Conversation and collaboration SL.4.3: Speaker's point of view L.4.4a-c: Determine/clarify meaning of words L.4.5a: Word relationships (figurative language) RF.4.3a: Phonics and word recognition RF.4.4b,c: Fluency		4.OA.5: Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. 4.MD.3: Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.		4.P.3.1: Recognize the basic forms of energy as the ability to cause motion or create change.		4.G.1: Understand how human, environmental, and technological factors affect the growth and development of North Carolina. • 4.G.1.4: Explain the impact of technology (communication, transportation, inventions, etc.) on North Carolina's citizens, past and present.	
	December	Unit 3: Animals		Unit 3: Geometry	4.G.1: Draw and identify points, lines, line segments, rays, angles, and perpendicular and parallel lines. 4.MD.5: Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. 4.MD.6: Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. 4.MD.7: Recognize angle measure as additive. Solve addition/subtraction problems to find unknown angles.	Energy: Conservation and Transfer	4.P.3.2: Recognize that light travels in a straight line until it strikes an object or travels from one medium to another and that light can be reflected, refracted, or absorbed.		4.E.1: Understand how a market economy impacts life in North Carolina. • 4.E.1.4: Explain the impact of entrepreneurship on the economy of North Carolina.	4.C&G.1: Understand the development, structure, and function of North Carolina's government. • 4.C&G.1.2: Compare the roles and responsibilities of state elected leaders. • 4.C&G.1.4: Compare North Carolina's government with local governments.
									4.E.1.1: Explain the cause of day and night based on the rotation of Earth on its axis.	

THIRD NINE WEEKS	Month	English Language Arts	Math	Science	Social Studies
	January	Unit 4: America's Past RL.4.1/RI.4.1: Determine what the text says – inference/evidence RL.4.2/RI.4.2: Central ideas/themes/summary RL.4.4/RI.4.4: Interpret words and phrases (word choice) RL.4.7/RI.4.7: Integrate and evaluate content in diverse media RI.4.8: Explain use of reasons and evidence to support particular points in a text. W.4.3: Write narratives W.4.8: Gather relevant information/synthesize W.4.9: Draw evidence (write to sources) SL.4.2: Integrate and evaluate information in diverse media SL.4.4: Present information L.4.2a-d: Conventions of standard English (capitalization, punctuation, and spelling) L.4.5b: Word relationships (common idioms, adages, and proverbs) RF.4.3a: Phonics and word recognition (letter-sound correspondences, syllabication patterns, and morphology) RF.4.4a-b: Read text with purpose and understanding; read for accuracy, appropriate rate, and expression	Unit 3: Geometry 4.G.2: Classify 2D figures based on presence/absence of parallel or perpendicular lines, or of angles of a specified size. Recognize right triangles as a category, and identify right triangles. 4.G.3: Recognize a line of symmetry as a line across a 2D figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. 4.NF.1: Explain why a fraction a/b is equivalent to a fraction $(n \times a) / (n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. 4.NF.2: Compare two fractions with different numerators and different denominators. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions. 4.NF.3: Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.	Earth in the Universe 4.E.1.2: Explain the monthly changes in the appearance of the moon, based on the moon's orbit around the Earth.	Unit 3: Navigating Native North Carolina 4.H.1: Analyze the chronology of key historical events in North Carolina history. <ul style="list-style-type: none"> 4.H.1.2: Explain how and why North Carolina was established. 4.H.1.4: Analyze North Carolina's role in major conflicts and wars from the Pre-Colonial period through Reconstruction. 4.G.1: Understand how human, environmental, and technological factors affect the growth and development of North Carolina. <ul style="list-style-type: none"> 4.G.1.2: Explain the impact that human activity has on the availability of natural resources in North Carolina. 4.G.1.3: Exemplify the interactions of various peoples, places, and cultures in terms of adaptation and modification of the environment. 4.E.1: Understand how a market economy impacts life in North Carolina. <ul style="list-style-type: none"> 4.E.1.2: Understand how scarcity and choice in a market economy impact business decisions. 4.C&G.1: Understand the development, structure, and function of North Carolina's government. <ul style="list-style-type: none"> 4.C&G.1.3: Explain the influence of the colonial history of North Carolina on the governing documents of our state. 4.C.1: Understand the impact of various cultural groups on North Carolina. <ul style="list-style-type: none"> 4.C.1.1: Explain how the settlement of people from various cultures affected the development of regions in North Carolina (languages, foods, and traditions).
	February				
	March	Unit 5: The Earth and the Sky in Native American Stories RL.4.2/RI.4.2: Central ideas/themes/summary RL.4.3/RI.4.3: Analyze text structure (individuals/events/ideas) RL.4.5/RI.4.5: Analyze the structure of text RL.4.6/RI.4.6: Point of view/ purpose W.4.2c-e: Write to inform/explain (use words and phrases to link ideas; use precise language and domain-specific vocabulary; provide a concluding statement) W.4.4: Writing production; clear/coherent writing W.4.8: Gather relevant information/synthesize SL.4.3: Speaker's point of view SL.4.5: Understanding of presentations	Ecosystems 4.L.1.1: Give examples of changes in an organism's environment that are beneficial to it and some that are harmful. 4.L.1.2: Explain how animals meet their needs by using behaviors in response to information received from the environment.		

FOURTH NINE WEEKS	Month	English Language Arts	Math	Science	Social Studies
	March	Unit 5: The Earth and the Sky in Native American Stories L.4.3a-c: Knowledge of language function L.4.4a: Determine/clarify word meanings (use context clues to determine word meaning) L.4.5a: Word relationships (figurative language) RF.4.3a: Phonics and word recognition (letter-sound correspondences, syllabication patterns, and morphology) RF.4.4a-b: Read text with purpose and understanding; read for accuracy, appropriate rate, and expression	Unit 4: Fractions and Decimals 4.NF.5: Express a fraction with denominator 10 as an equivalent fraction with denominator 100; use this technique to add two fractions with respective denominators 10 and 100. 4.NF.6: Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram. 4.NF.7: Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record comparisons with $>$, $=$, or $<$. Justify the conclusions. 4.MD.1: Know relative sizes of measurement units within one system. Within a single system, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a table. 4.MD.2: Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams. 4.MD.4: Create a line plot to display a data set of measurements in fractions of a unit ($1/2$, $1/4$, $1/8$). Solve problems involving addition and subtraction of fractions using line plot.	Ecosystems 4.L.1.3: Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling waste, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion). 4.L.1.4: Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.	Unit 4: Transforming North Carolina 4.G.1: Understand how human, environmental, and technological factors affect the growth and development of North Carolina. • 4.G.1.4: Explain the impact of technology (communication, transportation, and inventions) on North Carolina's citizens, past and present. 4.E.1: Understand how a market economy impacts life in North Carolina. • 4.E.1.1: Understand the basic concepts of a market economy: price, supply, demand, scarcity, productivity, and entrepreneurship. 4.E.2: Understand the economic factors when making personal choices. • 4.E.2.1: Explain how personal financial decisions such as spending, saving, and paying taxes can positively and/or negatively affect everyday life. 4.C&G.2: Analyze the North Carolina Constitution. • 4.C&G.2.1: Analyze the preamble and articles of the North Carolina Constitution in terms of rights and responsibilities. • 4.C&G.2.2: Give examples of rights and responsibilities of citizens according to the North Carolina Constitution.
	April				
	May	Unit 6: Heroes RL.4.9/RI.4.9: Compare and contrast the treatment of similar themes and topics and patterns of events; Integrate information from texts W.4.3c-e: Write to inform/explain (use words and phrases to link ideas; use precise language and domain-specific vocabulary; provide a concluding statement) W.4.4: Writing production; clear/coherent writing W.4.6: Produce and publish writing SL.4.6: Adapt speech/ command of formal English L.4.5a-c: Word relationships/figurative language (simple similes and metaphors, common idioms, adages, and proverbs, antonyms, synonyms) RF.4.3a: Phonics and word recognition (letter-sound correspondences, syllabication patterns, and morphology) RF.4.4a-c: Read text with purpose and understanding; read for accuracy, appropriate rate, and expression		Molecular Biology	
	May				