**Social Studies**

**3.01** Assess changes in ways of living over time and determine whether the changes are primarily political, economic, or social.

**3.02** Identify people, symbols, events and documents associated with NC history.

**3.03** Examine the Lost Colony and explain its importance in the settlement of NC.

**3.04** Compare and contrast ways in which people, goods, and ideas moved in the past with their movement today.

**3.05** Describe the political and social history of colonial NC and analyze its influence on the state today.

**4.01** Assess and evaluate the importance of regional diversity on the development of economic, social, and political institutions in NC.

**Science**

**Fossils, Land Changes, Moon, & Adaptations** (9 weeks)

**4.E.2.1** Compare fossils (including molds, casts, and preserved parts of plants and animals) to one another and to living organisms.

**4.E.2.2** Infer ideas about Earth’s early environments from fossils of plants and animals that lived long ago.

**4.E.2.3** Give examples of how the surface of the earth changes due to slow processes such as erosion and weathering and rapid processes such as landslides, volcanic eruptions and earthquakes.

**4.E.1.1** Explain the cause of day and night based on the rotation of Earth on its axis.

**4.E.1.2** Explain the monthly changes in the appearance of the moon, based on the moon’s orbit around the Earth.

**4.L.1.3** Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling wastes, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion).

**4.L.1.1** Give examples of changes in an organism’s environment that are beneficial to it and some that are harmful.

3rd Quarter

Curriculum & Standards

**Math**

**Unit 6: Fraction Cards and Decimal Squares** (**34 days (8 days taught in quarter 2))**

[**4.NBT.2**](http://www.corestandards.org/Math/Content/4/NBT/A/2/)Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

**Extend understanding of fraction equivalence and ordering.**

[***4.NF.1***](http://www.corestandards.org/Math/Content/4/NF/A/1/)*Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × 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. Use this principle to recognize and generate equivalent fractions.*

[***4.NF.2***](http://www.corestandards.org/Math/Content/4/NF/A/2/)*Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. 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, e.g., by using a visual fraction model.*

***Build fractions from unit fractions.***

[***4.NF.3***](http://www.corestandards.org/Math/Content/4/NF/B/3/)*Understand a fraction a/b with a > 1 as a sum of fractions 1/b.*

[***4.NF.3.A***](http://www.corestandards.org/Math/Content/4/NF/B/3/a/)*Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.*

[***4.NF.3.B***](http://www.corestandards.org/Math/Content/4/NF/B/3/b/) *Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: 3/8 = 1/8 + 1/8 + 1/8 ; 3/8 = 1/8 + 2/8 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.*

[***4.NF.3.C***](http://www.corestandards.org/Math/Content/4/NF/B/3/c/)*Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.*

[***4.NF.3.D***](http://www.corestandards.org/Math/Content/4/NF/B/3/d/) *Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.*

[***4.NF.4***](http://www.corestandards.org/Math/Content/4/NF/B/4/) *Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.*

[***4.NF.4.A***](http://www.corestandards.org/Math/Content/4/NF/B/4/a/) *Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4).*

[***4.NF.4.B***](http://www.corestandards.org/Math/Content/4/NF/B/4/b/) *Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.)*

[***4.NF.4.C***](http://www.corestandards.org/Math/Content/4/NF/B/4/c/) *Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

***Understand decimal notation for fractions, and compare decimal fractions.***

[***4.NF.5***](http://www.corestandards.org/Math/Content/4/NF/C/5/) *Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.2 For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.*

[***4.NF.6***](http://www.corestandards.org/Math/Content/4/NF/C/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***](http://www.corestandards.org/Math/Content/4/NF/C/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 the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.*

**Represent and interpret data.**

[**4.MD.4**](http://www.corestandards.org/Math/Content/4/MD/B/4/) Make 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 by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.

**Unit 8: How Many Packages? How Many Groups?** (**19 days)**

[***4.OA.3***](http://www.corestandards.org/Math/Content/4/OA/A/3/) *Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.*

**Generate and analyze patterns.**

[**4.OA.5**](http://www.corestandards.org/Math/Content/4/OA/C/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. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

[***4.NBT.5***](http://www.corestandards.org/Math/Content/4/NBT/B/5/) *Multiply a whole number of up to four digits by a one-digit whole number, and multiply two 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.*

[***4.NBT.6***](http://www.corestandards.org/Math/Content/4/NBT/B/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. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.*

[**4.MD.2**](http://www.corestandards.org/Math/Content/4/MD/A/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 such as number line diagrams that feature a measurement scale.