

Grade 3 - Quarter 1 Objectives by Hierarchy

Math	Science	Social Studies
Number and number sense (place value, rounding, comparing)	Scientific Investigations	Geography / Map, Globe, and Chart Skills
3.1.a: The student will read and write six-digit numerals and identify the place value and value of each digit	3.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations.	3.4.a: The student will develop map skills by locating Greece, Rome, and West Africa
3.1.b: The student will round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand.	3.1.a observations are made and are repeated to ensure accuracy; . 3.1.b predictions are formulated using a variety of sources of information;	3.6: The student will read and construct maps, tables, graphs, and/or charts.
3.1.c: The student will compare two whole numbers between 0 and 9,999, using symbols greater than, less than, or = and words greater than, less than, or equal to).	3.1.c objects with similar characteristics or properties are classified into at least two sets and two subsets; 3.1.d natural events are sequenced chronologically; . 3.1.e length, volume, mass, and temperature are estimated and measured in metric and standard English units using proper tools and techniques;	3.5.e: The student will develop map skills by locating specific places, using a simple letter-number grid system.
3.2: The student will recognize and use the inverse relationships between addition/subtraction and multiplication/division to complete basic fact sentences. The student will use these relationships to solve problems.	3.1.f time is measured to the nearest minute using proper tools and techniques; 3.1.g questions are developed to formulate hypotheses; 3.1.h data are gathered, charted, graphed, and analyzed; 3.1.i unexpected or unusual quantitative data are recognized;	3.5.c: The student will develop map skills by locating the countries of Spain, England, and France.
Computation and estimation	3.1.j inferences are made and conclusions are drawn; 3.1.k data are communicated; 3.1.l models are designed and built; 3.1.m current applications are used to reinforce science concepts.	3.5.b: The student will develop map skills by using the equator and prime meridian to identify the Northern, Southern, Eastern, and Western Hemispheres.
3.4: The student will estimate solutions to and solve single-step and multistep problems involving the sum or difference of two whole numbers, each 9,999 or less, with or without regrouping.		3.5.a: The student will develop map skills by positioning and labeling the seven continents and five oceans to create a world map.
Measurement (time, money, weight /mass, volume, length, temperature)		
3.11.a: The student will tell time to the nearest minute, using analog and digital clocks.		
3.11.b: The student will determine elapsed time in one-hour increments over a 12-hour period.	Physical Science	
3.12: The student will identify equivalent periods of time, including relationships among days, months, and years, as well as minutes and hours.	3.3 The student will investigate and understand that objects are made of materials that can be described by their physical properties.	
3.13: The student will read temperature to the nearest degree from a Celsius thermometer and a Fahrenheit thermometer. Real thermometers and physical models of thermometers will be used.	3.3.a objects are made of one or more materials;	
Probability and statistics (organizes, displays and interprets data)	3.3.b physical properties remain the same as the material is changed in visible size; .	
3.17.a: The student will collect and organize data, using observations, measurements, surveys, or experiments.	3.3.c visible physical changes are identified.	
3.17.b: The student will construct a line plot, a picture graph, or a bar graph to represent the data.	Earth Science	
	3.9 The student will investigate and understand the water cycle and its relationship to life on Earth.	

Grade 3 - Quarter 1 Objectives by Hierarchy

Math	Science	Social Studies
Patterns and algebraic thinking	Earth Science (cont)	
3.20.a: The student will investigate the identity and the commutative properties for addition and multiplication.	3.8 The student will investigate and understand basic patterns and cycles occurring in nature.	
3.20.b: The student will identify examples of the identity and commutative properties for addition and multiplication	3.8.a patterns of natural events such as day and night, seasonal changes, simple phases of the moon, and tides;	
Reasoning and problem-solving	3.8.b animal life cycles;	
3.17.c: The student will read and interpret the data represented in line plots, bar graphs, and picture graphs and write a sentence analyzing the data	3.8.c plant life cycles.	
Mathematical communication (vocabulary)	3.9.a there are many sources of water on Earth;	
The student will use vocabulary correctly to communicate about mathematics	3.9.b the energy from the sun drives the water cycle;	
	3.9.c the water cycle involves several processes,;	
	3.9.d water is essential for living things;	
	3.9.e water on Earth is limited and needs to be conserved.	

Grade 3 - Quarter 2 Objectives by Hierarchy

Math	Science	Social Studies
Number and number sense (place value, rounding, comparing)	Scientific Investigations	Geography / Map, Globe, and Chart Skills
3.2: The student will recognize and use the inverse relationships between addition/subtraction and multiplication/division to complete basic fact sentences. The student will use these relationships to solve problems.	3.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations. 3.1.a observations are made and are repeated to ensure accuracy; . 3.1.b predictions are formulated using a variety of sources of information; 3.1.c objects with similar characteristics or properties are classified into at least two sets and two subsets; 3.1.d natural events are sequenced chronologically;. 3.1.e length, volume, mass, and temperature are estimated and measured in metric and standard English units using proper tools and techniques; 3.1.f time is measured to the nearest minute using proper tools and techniques; 3.1.g questions are developed to formulate hypotheses; 3.1.h data are gathered, charted, graphed, and analyzed; 3.1.i unexpected or unusual quantitative data are recognized; 3.1.j inferences are made and conclusions are drawn; 3.1.k data are communicated; 3.1.l models are designed and built; 3.1.m current applications are used to reinforce science concepts.	3.4.b: The student will develop map skills by describing the physical and human characteristics of Greece, Rome, and West Africa.
Multiplication and division facts		Economics
3.5: The student will recall multiplication facts through the twelves table, and the corresponding division facts. .		3.9: The student will identify examples of making an economic choice and will explain the idea of opportunity cost (what is given up when making a choice).
3.6: The student will represent multiplication and division, using area, set, and number line models, and create and solve problems that involve multiplication of two whole numbers, one factor 99 or less and the second factor 5 or less.		3.8: The student will recognize that because people and regions cannot produce everything they want, they specialize in what they do best and trade for the rest.
Measurement (time, money, weight /mass, volume, length, temperature)		3.7: The student will explain how producers in ancient Greece, Rome, and the West African empire of Mali used natural resources, human resources, and capital resources in the production of goods and services.
3.8: The student will determine, by counting, the value of a collection of bills and coins whose total value is \$5.00 or less, compare the value of the bills and coins, and make change.		3.4.c: The student will develop map skills by explaining how the people of Greece, Rome, and West Africa adapted to and/or changed their environment to meet their needs
Computation and estimation		Countries / Cultures.
3.4: The student will estimate solutions to and solve single-step and multistep problems involving the sum or difference of two whole numbers, each 9,999 or less, with or without regrouping.	Life Science	3.2: The student will study the early West African empire of Mali by describing its oral tradition (storytelling), government (kings), and economic development (trade).
Multiplication and division facts	3.6 The student will investigate and understand that ecosystems support a diversity of plants and animals that share limited resources	
3.19: The student will recognize and describe a variety of patterns formed using numbers, tables, and pictures, and extend the patterns, using the same or different forms.	3.6.a aquatic ecosystems;	
3.20.a: The student will investigate the identity and the commutative properties for addition and multiplication.	3.6.b terrestrial ecosystems;.	
3.20.b: The student will identify examples of the identity and commutative properties for addition and multiplication	3.6.c populations and communities;.	
	3.6.d the human role in conserving limited resources.	

Grade 3 - Quarter 2 Objectives by Hierarchy

Math	Science	Social Studies
	Physical Science	
	3.2 The student will investigate and understand simple machines and their uses.	
	3.2.a purpose and function of simple machines;.	
	3.2.b types of simple machines;	
	3.2.c compound machines;	
	3.2.d examples of simple and compound machines found in the school, home, and work environments.	
	Earth Science	
	3.11 The student will investigate and understand different sources of energy. .	
	3.11.a energy from the sun; .	
	3.11.b sources of renewable energy;	
	3.11.c sources of nonrenewable energy.	

Grade 3 - Quarter 3 Objectives by Hierarchy

Math	Science	Social Studies
Number and number sense (place value, rounding, comparing)	Scientific Investigations	History
3.3.a: The student will name and write fractions (including mixed numbers) represented by a model.	3.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations. 3.1.a observations are made and are repeated to ensure accuracy; . 3.1.b predictions are formulated using a variety of sources of information;	3.5.d: The student will develop map skills by locating the regions in the Americas explored by Christopher Columbus (San Salvador in the Bahamas), Juan Ponce de Leon (St. Augustine, Florida), Jacques Cartier (Quebec, Canada), and Christopher Newport .
3.3.b: The student will model fractions (including mixed numbers) and write the fractions' names.	3.1.c objects with similar characteristics or properties are classified into at least two sets and two subsets; 3.1.d natural events are sequenced chronologically;. 3.1.e length, volume, mass, and temperature are estimated and measured in metric and standard English units using proper tools and techniques;	3.1: The student will explain how the contributions of ancient Greece and Rome have influenced the present world in terms of architecture, government (direct and representative democracy), and sports. .
3.3.c: The student will compare fractions having like and unlike denominators, using words and symbols greater than, less than or =	3.1.f time is measured to the nearest minute using proper tools and techniques; 3.1.g questions are developed to formulate hypotheses; 3.1.h data are gathered, charted, graphed, and analyzed; 3.1.i unexpected or unusual quantitative data are recognized;	3.3.a: The student will study the exploration of the Americas by describing the accomplishments of Christopher Columbus, Juan Ponce de Leon, Jacques Cartier, and Christopher Newport .
Geometry	3.1.j inferences are made and conclusions are drawn; 3.1.k data are communicated; 3.1.l models are designed and built; 3.1.m current applications are used to reinforce science concepts.	3.3.b: The student will study the exploration of the Americas by identifying the reasons for exploring, the information gained, the results of the travels, and the impact of the travels on American Indians .
3.14: The student will identify, describe, compare, and contrast characteristics of plane and solid geometric figures (circle, square, rectangle, triangle, cube, rectangular prism, square pyramid, sphere, cone, and cylinder)		
3.15: The student will identify and draw representations of points, line segments, rays, angles, and lines.		
3.16: The student will identify and describe congruent and noncongruent plane figures.	Life Science	
Patterns and algebraic thinking	3.4 The student will investigate and understand that adaptations allow animals to satisfy life needs and respond to the environment.	
3.19: The student will recognize and describe a variety of patterns formed using numbers, tables, and pictures, and extend the patterns, using the same or different forms.	3.4.a behavioral adaptations;	
Mathematical communication (vocabulary)	3.4.b physical adaptations..	
The student will use vocabulary correctly to communicate about mathematics	3.5 The student will investigate and understand relationships among organisms in aquatic and terrestrial food chains.	
	3.5.a producer, consumer, decomposer;	
	3.5.b herbivore, carnivore, omnivore;	
	3.5.c predator and prey.	
	Earth Science	
	3.8 The student will investigate and understand basic patterns and cycles occurring in nature.	

Grade 3 - Quarter 3 Objectives by Hierarchy

Math	Science	Social Studies
	Earth Science (cont)	
	3.8.a patterns of natural events such as day and night, seasonal changes, simple phases of the moon, and tides;	
	3.8.b animal life cycles;	
	3.8.c plant life cycles.	

Grade 3 - Quarter 4 Objectives by Hierarchy

Math	Science	Social Studies
Measurement (time, money, weight /mass, volume, length, temperature)	Scientific Investigations	History
3.9.a: The student will estimate and use U.S. Customary and metric units to measure length to the nearest 1/2-inch, inch, foot, yard, centimeter, and meter.	3.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations. 3.1.a observations are made and are repeated to ensure accuracy; . 3.1.b predictions are formulated using a variety of sources of information;	3.11.c: The student will explain the importance of the basic principles that form the foundation of a republican form of government by recognizing that Veterans Day and Memorial Day honor people who have served to protect the country's freedoms. .
3.9.b: The student will estimate and use U.S. Customary and metric units to measure liquid volume in cups, pints, quarts, gallons, and liters.	3.1.c objects with similar characteristics or properties are classified into at least two sets and two subsets; 3.1.d natural events are sequenced chronologically;. 3.1.e length, volume, mass, and temperature are estimated and measured in metric and standard English units using proper tools and techniques;	3.11.b: Identify the contributions of George Washington, Thomas Jefferson, Abraham Lincoln, Rosa Parks, Thurgood Marshall, Martin Luther King, Jr., and Cesar Chavez.
3.9.c: The student will estimate and use U.S. Customary and metric units to measure weight/mass in ounces, pounds, grams, and kilograms.	3.1.f time is measured to the nearest minute using proper tools and techniques;	Communities / Civics and Government
3.9.d: The student will estimate and use U.S. Customary and metric units to measure area and perimeter.	3.1.g questions are developed to formulate hypotheses; 3.1.h data are gathered, charted, graphed, and analyzed; 3.1.i unexpected or unusual quantitative data are recognized; 3.1.j inferences are made and conclusions are drawn; 3.1.k data are communicated;	3.12: The student will recognize that Americans are a people of diverse ethnic origins, customs, and traditions, who are united by the basic principles of a republican form of government and respect for individual rights and freedoms.
3.10.a: The student will measure the distance around a polygon in order to determine perimeter.	3.1.l models are designed and built;	3.11.d: The student will explain the importance of the basic principles that form the foundation of a republican form of government by describing how people can serve the community, state, and nation
3.10.b: The student will count the number of square units needed to cover a given surface in order to determine area.	3.1.m current applications are used to reinforce science concepts.	3.11.a: The student will explain the importance of the basic principles that form the foundation of a republican form of government by describing the individual rights to life, liberty, and the pursuit of happiness; and equality under the law.
3.11.a: The student will tell time to the nearest minute, using analog and digital clocks.	Earth Science	3.10.c: The student will recognize the importance of government in the community, Virginia, and the United States of America by explaining that government protects the rights and property of individuals.
3.11.b: The student will determine elapsed time in one-hour increments over a 12-hour period.	3.10 The student will investigate and understand that natural events and human influences can affect the survival of species.	3.10.b: The student will recognize the importance of government in the community, Virginia, and the United States of America by explaining that the basic purposes of government are to make laws, carry out laws, and decide if laws have been broken.
Probability and statistics (organizes, displays and interprets data)	3.10.a the interdependency of plants and animals;	3.10.a: The student will recognize the importance of government in the community, Virginia, and the United States of America by explaining the purpose of rules and laws
3.18: The student will investigate and describe the concept of probability as chance and list possible results of a given situation.	3.10.b the effects of human activity on the quality of air, water, and habitat;.	
Mathematical communication (vocabulary)	3.10.c the effects of fire, flood, disease, and erosion on organisms;.	
The student will use vocabulary correctly to communicate about mathematics	3.10.d conservation and resource renewal.	

Grade 3 - Quarter 4 Objectives by Hierarchy

Math	Science	Social Studies
	Earth Science (cont.)	
	3.7 The student will investigate and understand the major components of soil, its origin, and its importance to plants and animals including humans.	
	3.7.a soil provides the support and nutrients necessary for plant growth;	
	3.7.b topsoil is a natural product of subsoil and bedrock; .	
	3.7.c rock, clay, silt, sand, and humus are components of soils;	
	3.7.d soil is a natural resource and should be conserved.	
	3.8 The student will investigate and understand basic patterns and cycles occurring in nature.	
	3.8.a patterns of natural events such as day and night, seasonal changes, simple phases of the moon, and tides;	
	3.8.b animal life cycles;	
	3.8.c plant life cycles.	