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| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in our community?  |
| **Standards of Learning:** |
|  **ENVIRONMENT** | **Standard 1:****Ecological, Social, and Economic Systems**Students develop knowledge of the interconnectionsand interdependency of ecological, social, andeconomic systems. They demonstrate understanding ofhow the health of these systems determines thesustainability of natural and human communities atlocal, regional, national, and global levels. | **Related Environmental Activities:**PLT Activity 43 “ Have Seeds, Will Travel”* TSW sort or classify plant seeds they have collected.
* TSW identify varying methods of seed dispersal.

PLT Activity 21 “Adopt a Tree”* TSW describe a chosen tree using personal observations and investigation and organize information about the tree.
* TSW identify relationships between their tree and other organisms.

PLT Activity 22 “ Trees as Habitats* TSW describe ways animals and plants depend on trees for survival and in turn influence the trees.
* TSW identify interrelationships between the organisms using a tree.

PLT Activity 68 “Name That Tree”* TSW identify several trees using various physical characteristics.

PLT Activity 7 “ Habitat Pen Pals”* TSW identify similarities and differences between organisms by collecting pictures and categorizing them.
* TSW comprehend the connection between diverse

environments in which they live.PLT Activity 25 “ Bird & Worms”* TSW identify predator & prey in the environment
* TSW recognize camouflage
* TSW model behaviors of a predator
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| **Standard 2:****The Natural and Built Environment**Students engage in inquiry and systems thinking anduse information gained through learning experiencesin, about, and for the environment to understand thestructure, components, and processes of natural andhuman-built environments. |
| **Standard 3:****Sustainability and Civic Responsibility**Students develop and apply the knowledge,perspective, vision, skills, and habits of mind necessaryto make personal and collective decisions and takeactions that promote sustainability. |
| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in our community? |
| **Standards of Learning:** |
|  **SCIENCE**  | 3.1 The student will plan and conduct investigations in which1. predictions and observations are made;
2. objects with similar characteristics are classified into at least two sets and two subsets;
3. questions are developed to formulate hypotheses;
4. volume is measured to the nearest milliliter and liter;
5. length is measured to the nearest centimeter;
6. mass is measured to the nearest gram;
7. data are gathered, charted, and graphed (line plot, picture graph, and bar graph);
8. temperature is measured to the nearest degree Celsius;
9. time is measured to the nearest minute;
10. inferences are made and conclusions are drawn; and
11. natural events are sequenced chronologically.

**3.3** The student will investigate and understand that objects are  made of materials that can be described by their physical  properties. Key concepts include a) objects are made of one or more materials; b) physical properties remain the same as the material  is changed in visible size; and c) visible physical changes are identified.3.4 The student will investigate and understand that behavioral and physical adaptations allow animals to respond to life needs. Key concepts include1. methods of gathering and storing food, finding shelter, defending themselves, and rearing young; and
2. hibernation, migration, camouflage, mimicry, instinct, and learned behavior.
 | **Related Environmental Objectives:*** TSW investigate and observe how parts of objects, plants and animals are connected.
* TSW examine and distinguish chararteristics of diverse plants and animals in the environment.
* TSW categorize oganisms according to their diverse environments, behavioral and physical adaptation.
* TSW plant and/or maintain native gardens.

 **VDOE Enhanced Scope and Sequence***3.5a Food Chains-“Producers and Consumers”**3.5b “What’s for Dinner”**3.5c “Are You a Predator of Prey?”**3.6a,b “Animal Adaptation: Camouflage”**3.6a,b “ Animal Adaptation: Physical Characteristics*    |
|  **SCIENCE cont. Cont.** | 3.5 The student will investigate and understand relationships among organisms in aquatic and terrestrial food chains. Key concepts include1. producer, consumer, decomposer;
2. herbivore, carnivore, omnivore; and
3. predator and prey.

3.6 The student will investigate and understand that environments support a diversity of plants and animals that share limited resources. Key concepts include1. water-related environments (pond, marshland, swamp, stream, river, and ocean environments);
2. dry-land environments (desert, grassland, rain forest, and forest environments); and population and community.
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| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in our community? (People, plants and animals) |
| **Standards of Learning:** |
| **SOCIAL STUDIES** | 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). 3.4 The student will develop map skills bya) locating Greece, Rome, and West Africa;b) describing the physical and human characteristics of Greece, Rome, and West Africa;c) explaining how the people of Greece, Rome, and West Africa adapted to and/or changed their environment to meet their needs.3.5 The student will develop map skills bya) positioning and labeling the seven continents and five oceans to create a world map;b) using the equator and prime meridian to identify the Northern, Southern, Eastern, and Western Hemispheres;e) locating specific places, using a simple letter-number grid system.3.6 The student will read and construct maps, tables, graphs, and/or charts.3.10 The student will recognize the importance of government in the community, Virginia, and the United States of America by a) explaining the purpose of rules and laws3.12 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. | **Related Integrated Objectives:*** TSW establish class rules and explain why rules and laws are important
* TSW describe the physical environments of Greece, Rome and West Africa
* TSW create a diarama depicting the environments of Greece, Rome and Mali
* TSW investigate ways in which the people of ancient Greece, Rome and Mali had to adapt to their environment
* TSW compare uses of natural resources in the ancient civilizations
* TSW construct a 3-dimensional map of the world using recycled materials
* TSW create a map of the Patrick Henry environment
* TSW describe and appreciate diversity among groups of people
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| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in our community? |
| **Standards of Learning:** |
|  **READING** | 3.1The student will use effective communication skills in group activities.a) Listen attentively by making eye contact, facing the speaker, asking questions, and summarizing what is said.b) Ask and respond to questions from teachers and other group members.c) Explain what has been learned.d) Use language appropriate for context.e) Increase listening and speaking vocabularies3.2 The student will present brief oral reports.a) Speak clearly.b) Use appropriate volume and pitch.c) Speak at an understandable rate.d) Organize ideas sequentially or around major points of information.e) Use grammatically correct language and specific vocabulary to communicate ideas.3.3 The student will apply word-analysis skills when reading.a) Use knowledge of regular and irregular vowel patterns.b) Decode regular multisyllabic words.3.4The student will expand vocabulary when reading.a) Use knowledge of homophones.b) Use knowledge of roots, affixes, synonyms, and antonyms.c) Apply meaning clues, language structure, and phonetic strategies.d) Use context to clarify meaning of unfamiliar words. | **Anchor Text Bibliography:**Sundiata: Lion King of Mali ( folktale) by [David Wisniewski](http://www.teachingbooks.net/tb.cgi?aid=2344) Explore Ancient Greece!: 25 Great Projects, Activities, Experiments by [Carmella Van Vleet](http://www.teachingbooks.net/tb.cgi?aid=11332) and [Alex Kim](http://www.teachingbooks.net/tb.cgi?aid=12474) Tales of Ancient Greece (folk tale) by [Enid Blyton](http://www.teachingbooks.net/tb.cgi?aid=5140) “If I Were a Kid in Ancient Greece:Children of the Ancient World”by Cobblestone Publishing“ If I Were a Kid in Ancient Rome:Children of the Ancient World”by Cobblestone Publishing“Animal Relationships” by Michel Barre’• “Claws, Coats, Camouflage” by Jason Goodman• “Fur, Feathers, and Flipper: How Animals Live Where They Do” by Patricia Lauber• “Do Not Disturb: The Mysteries of Animal Hibernation and Sleep” by Margery Facklam• ‘The Magic School Bus Gets Eaten” by Scholastic• “A Book About Food Chains” by Joanna Cole |
|  **READING cont.**  | e) Discuss meanings of words and develop vocabulary by listening and reading a variety of texts.f) Use vocabulary from other content areas.g) Use word reference resources including the glossary, dictionary, and thesaurus.**3.5** The student will read and demonstrate comprehension of fictional text and poetry.a) Set a purpose for reading.b) Make connections between previous experiences and reading selections.c) Make, confirm, or revise predictions.d) Compare and contrast settings, characters, and events.e) Identify the author’s purpose.f) Ask and answer questions about what is read.g) Draw conclusions about text.h) Identify the problem and solution.i) Identify the main idea.j) Identify supporting details.k) Use reading strategies to monitor comprehension throughout the reading process.l) Differentiate between fiction and nonfiction.m) Read with fluency and accuracy.**3.6** The student will continue to read and demonstratecomprehension of nonfiction texts.a) Identify the author’s purpose.b) Use prior and background knowledge as context for new learning.c) Preview and use text features.j) Use reading strategies to monitor comprehension throughout the reading process.k) Identify new information gained from reading.l) Read with fluency and accuracy. | • “Trout are Made of Trees” by April Pulley Sayre• “Wolf Island” by Celia Godkin• Animal Habitats: “Discovering How Animals Live in the Wild” by Tony Hare • *English Standards of Learning Curriculum Framework* Web site,<http://www.pen.k12.va.us/VDOE/Instruction/English/englishCF.html>.• *Phonological Awareness Literacy Screening (PALS)* Web site, <http://pals.virginia.edu>.• *Virginia’s Early Intervention READING Initiative (EIRI)* Web site,http://www.pen.k12.va.us/VDOE/Instruction/Reading/readinginitiative.html.• *Teaching Early Phonological Awareness Skills* Web site,<http://www.pen.k12.va.us/VDOE/Instruction/Reading/doe-pa.pdf>.**Guided Reading Resources:****(From Fontas and Pinnell Library)**

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| DRA 28 -34Dancing with the Indians MThe Littles Go Exploring MWorking at a TV Station M |
| DRA 36 -40*A Million Fish More or Less O**Plant Life O*Shark Lady OWhere Have All the Pandas Gone P The Drum Beats On PG is for Googol PIn the Rain Forest P Food Chain PIf You Lived With the Cherokee QIf You Lived With the Indians of the Northwest QMagic School Bus Food Chain Q  |
| **DRA > 40**All About Sharks RNative American Art ROctopus, Squid, and Cuttlefish R Seahorses, Pipefish, and Their Kin SAll About Turtles SWacky Trees TThe 10 Deadliest Plants TLights, Camera, AmaleeBrian’s Winter T |
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| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in our community? |
| **Standards of Learning:**  |
|  **WRITING** |  3.8 The student will write legibly in cursive.3.9 The student will write descriptive paragraphs.a) Develop a plan for writing.b) Focus on a central idea.c) Group related ideas.d) Include descriptive details that elaborate the central idea.e) Revise writing for clarity.3.10 The student will write stories, letters, simple explanations, and short reports across all contentareas.a) Use a variety of planning strategies.b) Organize information according to the type of writing.e) Use available technology.3.11 The student will edit writing for correct grammar, capitalization, punctuation, and spelling.a) Use complete and varied sentences.b) Use the word *I* in compound subjects.c) Use past and present verb tense.d) Use singular possessives.e) Use commas in a simple series.f) Use simple abbreviations.g) Use apostrophes in contractions with pronouns.h) Use correct spelling for high-frequency sight words, including irregular plurals. | **Related Integrated Activities:**The students will:* Write a descriptive paper “ If I Lived in Greece, Rome or Mali”.
* Write penpal letters to students attending other schools with an evironmental focus.
* Create a travel brochure highlighting the physical characteristics of ancient Greece, Rome or Mali.
* Write journal entries tracking the growth of plants in butterfly gardens.

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| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in our community? |
| **Standards of Learning:** |
| **MATHEMATICS** | 3.1 The student willa) read and write six-digit numerals and identify the place value and value of each digit;b) round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand; andc) compare two whole numbers between 0 and 9,999, using symbols (>, <, or = ) and words (*greater than,* *less than*, or *equal to*).3.17 The student willa) collect and organize data, using observations, measurements, surveys, or experiments;b) construct a line plot, a picture graph, or a bar graph to represent the data; andc) read and interpret the data represented in line plots, bar graphs, and picture graphs and write a sentence analyzing the data. | **Related Integrated Activities:**The student will:* Construct a picture, bar, line graph of types of trees of immediate environment.
* Create a mock farmer’s market and price produce to be sold.
* Collect data on the organisms in the environment and arrange in charts and graphs.
* Create a picture graph to display kinds of trees seen on nature walk.
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| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in our community? |
| **Standards of Learning:** |
|  **ART**  |   3.1 The student will identify innovative solutions used by artists to solve visual problems. 3.2 The student will use various art processes and techniques to produce works of art that demonstrate craftsmanship. 3.3 The student will develop art ideas from a variety of sources, including print, non-print, and technology. 3.6 The student will create a functional object that reflects the contributions of Greco-Roman civilizations, as found in artifacts. 3.9 The student will identify and use architectural forms (e.g., cube, cylinder, sphere, pyramid, cone). 3.10 The student will produce a work of art that communicates feelings. 3.11 The student will create a work of art in clay, using the coil-building process. | **Related Integrated Objectives:**The students will:* Use geometric figures to create a model reflecting the contributions on ancient Greeks and Romans.
* Create visual displays to evidence comprehension on contributions of ancient civilizations.
* Design 3-dimensional representations of diversity among plants, animals or people.

**Related Integrated Activities:**The student will:* Create a pictorial tree journal.
* Create a collage of plant and animals in their environment.
* Create a diarama depicting the environment of an ancient civilization

 and adaptations made by its people.  |
| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in our community? |
| **Standards of Learning:** |
|  **MUSIC** |   3.1 The student will sing a repertoire of songs in tune with a clear tone quality. 1. Sing melodies within the range of an octave. 2. Perform in a two-part music ensemble. 3. Accompany singing with rhythm and/or melody instruments. 4. Use music terminology to interpret a music selection.  3.4 The student will respond to music with movement. 1. Perform line and circle dances. 2. Perform dances and games from various cultures. 3. Dramatize songs, stories, and poems. 4. Perform choreographed and non-choreographed movements.  3.7 The student will create music through a variety of experiences. 1. Create accompaniments and ostinatos for songs and chants. 2. Create movement to illustrate meter and form. 3. Create lyrics to familiar melodies. 4. Create new verses to songs.  | **Related Environmental Objectives:**The student will:* Listen to sounds in nature and relate to music.
* Create songs as evidence of learning.
* Listen to traditional music from diverse cultures.
* Observe and imitate dances from diverse cultures.

**Related Integrated Activities:**The student will:* Write a short song about diversity (people, plants or animals).
* Listen to nature’s “music” on a walking fieldtrip and describe in a journal.
* Watch videos of traditional songs and dance of diverse cultures.
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| **Quarterly Theme:** How do living things interact within our community?**3rd Grade Essential Question:** What role does diversity play in sour community? |
| **Standards of Learning:** |
| **HEALTH & PE** | 3.1 The student will explain that health habits impact personal growth and development. Keyconcepts/skills includea) food and beverage choices based on nutritional content;b) the benefits of physical activity and personal fitness;c) safe and harmful behaviors;d) positive interaction with family, peers, and other individuals.3.2 The student will use decision-making skills to promote health and personal wellness. Keyconcepts/skills includea) goal setting for personal health;b) the process of resolving conflicts peacefully;c) strategies for solving problems related to health. **Information Access and Use**3.4 The student will demonstrate the ability to use health information to improve personal health. Keyconcepts/skills includea) the use of health services and agencies to gain information;b) the ways in which health care has improved as a result of technology;c) the use of a variety of print, audiovisual, and electronic media resources.**Community Health and Wellness**3.5 The student will explain that customs and traditions may impact community health decisions. Keyconcepts/skills includea) dietary customs and practices;b) recreational activities;c) celebrations and traditions. | **Related Integrated Objectives:**The student will:* Discuss the importance of salt to ancient empire of Mali.
* Investigate the environment’s contributions to health.
* Take nature walks to promote physical interaction with the environment.

**Related Integrated Activities:**The student will:* Explain the importance of the gardens and their impact on health.
* Take nature walks and hikes in Forest Hill Park, James River Park, Reedy Creek.
* Create recipes using vegetables and herbs from the garden.
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| **INSTRUCTIONAL ELEMENTS** |
| **Key Vocabulary** | **Instructional Strategies** | **Instructional Materials** | **Technology** |
| Scienceadapt aquatic behavioralcamouflage carnivore consumer decayed defend diversity dormancy energy environment food chain food web gather habitat herbivore hibernation hunt instinct learned behavior migration mimicry omnivore organism predator prey producer relationship sequence Social Sciencecontributions columns aqueduct sculpture arch direct democracy parthenon olympic colosseumrepresentative democracy mosaicMathapproximate chart equal to equivalent estimate estimation even number expanded formfront-end greater than hundreds less thannumber lines odd number ones ordinal numbersplace value rounded standard form tensword form | * Small Groups
* Guided Practice
* Cooperative Groups
* Peer Tutoring
* Direct Instruction
* Exploration
 | * Project Learning Tree (PLT)
* VA DOE Enhanced Scope and Sequence
* “Discovering Nature in Your Backyard with Step-by-Step Projects for the Young Scientists” by Sally Hewitt

**Field Trips:*** Science Museum of Virginia
* Mathematics and Science Innovation Center
* Nature Walk/ Observation Walk
* Richmond Metro Zoo
* Maymont Nature Center/ Wildlife Exhibit
* Three Lakes Park Nature Center
* Virginia Museum of Fine Arts
 | * <http://www.bbc.co.uk/schools/ks2bitesize/index.shtml>
* [http://kids.nationalgeographic.com/kids/games/ geographygames/geospy/](http://kids.nationalgeographic.com/kids/games/%20geographygames/geospy/)
* [www.solpass.org](http://www.solpass.org)
* Civilizations: Greece and Rome

<http://chalk.richmond.edu/education/projects/webunits/greecerome/> * Roman Life For Kids

http://www.bbc.co.uk/schools/primaryhistory/romans/ * Daily Life In Early Civilization

 <http://www.mrdonn.org/index.html>  |

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| **INQUIRY PROJECT & CULMINATING ACTIVITY** |
| **Goal:**The third grade classes will work together to research the role diversity plays in our community. Then plan and execute presentations to show how the countries of Greece, Mali, and Rome have influenced our way of life.**Elements:**1. The students will plan and design a presentation related to the diversity of Greece, Rome, or Mali.
2. The students will use pictures, maps, graphs, charts, text, and or models to create a poster showing the diversity.
3. The students will provide an oral presentation to accompany their display.
4. The students will be able to locate their respective countries on a world map and identify the continent on which each is located.
5. The student will include physical, human, and citizen adaptations in their presentations.
6. The student will identify the arts and architecture seen and created from each country’s respective culture.
7. The students will identify and explain the form of government/leadership practiced in each country and how it affects our country.

**Pacing:**This project will be executed in 9 weeks. In-class work will be completed during the investigations block. Component pieces may be executed as home-based projects at the discretion of the classroom teacher.**Evaluation and Assessment:**Component pieces will be evaluated with assignment specific, standards related rubric. Scores for each standard will be entered into Kickboard and averaged as part of the quarterly student mastery grade. An SOL-aligned teacher-created rubric will assess the culminating activity. |

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| **ENVIRONMENT** |
| **Driving Objectives:** | **Essential Understanding:** | **Essential Skills:** | **Essential Questions:** |
| **Standard 1:****Ecological, Social, and Economic Systems**Students develop knowledge of the interconnectionsand interdependency of ecological, social, andeconomic systems. They demonstrate understanding of how the health of these systems determines thesustainability of natural and human communities atlocal, regional, national, and global levels.**Standard 2:****The Natural and Built Environment**Students engage in inquiry and systems thinking anduse information gained through learning experiencesin, about, and for the environment to understand thestructure, components, and processes of natural andhuman-built environments.**Standard 3:****Sustainability and Civic Responsibility**Students develop and apply the knowledge, perspective, vision, skills, and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability. | * The way people live is shaped by their environment.
* The environment consists of diverse types of plants and animals.
 | * TSW sort or classify plant seeds they have collected.
* TSW identify varying methods of seed dispersal.
* TSW describe a chosen tree using personal observations and investigation and organize information about the tree.
* TSW identify relationships between their tree and other organisms.
* TSW describe ways animals and plants depend on trees for survival and in turn influence the trees.
* TSW identify interrelationships between the organisms using a tree.
* TSW identify similarities and differences between organisms by collecting pictures and categorizing them.
* TSW comprehend the connection between diverse

environments in which they live. | * How can animals use trees for survival?
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| **SCIENCE** |
| **Driving Objectives:** | **Essential Understanding:** | **Essential Skills:** | **Essential Questions:** |
| Standard 3.1The student will plan and conduct investigations in which* a.) predictions and observations are made;
* b.) objects with similar characteristics are classified into at least two sets and two subsets;
* g.) data are gathered, charted, and graphed (line plot, picture graph, and bar graph);
* c.) questions are developed to formulate hypotheses;
* d.) volume is measured to the nearest milliliter and liter;

e.) length is measured to the nearest centimeter;* f.) mass is measured to the nearest gram;
* h.) temperature is measured to the nearest degree Celsius;
* i.) time is measured to the nearest minute;
* j.) inferences are made and conclusions are drawn; and
* k.) natural events are sequenced chronologically.
* **Standard 3.2**

The student will investigate and understand simple machines and their uses. Key concepts include* types of simple machines (lever, screw, pulley, wheel and axle, inclined plane, and wedge);
* how simple machines function;
* compound machines (scissors, wheelbarrow, and bicycle); and
* examples of simple and compound machines found in the school, home, and work environment.
* **Standard 3.4**

The student will investigate and understand that behavioral and physical adaptations allow animals to respond to life needs. Key concepts include* a.) methods of gathering and storing food, finding shelter, defending themselves, and rearing young; and
* b.) hibernation, migration, camouflage, mimicry, instinct, and learned behavior.
* The student will investigate and understand relationships among organisms in aquatic and terrestrial food chains. Key concepts include
* producer, consumer, decomposer;
* herbivore, carnivore, omnivore; and
* predator and prey.
* **Standard 3.6**

The student will investigate and understand that environments support a diversity of plants and animals that share limited resources. Key concepts includea) water-related environments (pond, marshland, swamp, stream, river, and ocean environments);b) dry-land environments (desert, grassland, rain forest, and forest environments); andc) population and community. | * Complete observations are made using all of the senses. Simple instruments can help extend the senses.
* Predictions are statements of what is expected to happen in the future based on past experiences and observations.
* In order for data from an investigation to be most useful, it must be organized so that it can be examined more easily.
* Charts and graphs are powerful tools for reporting and organizing data.
* It is sometimes useful to organize objects according to similarities and differences. By organizing objects in sets and subsets, it may be easier to determine a specific type of characteristic.
* Putting natural events in a sequence allows us to notice change over time.
* Metric measures, including centimeters, grams, milliliters, and degrees Celsius, are a standard way to record measurements. The metric system is recognized everywhere around the world. Framework, Standard 3.21, page 32.)
 | * Make and communicate careful observations.
* Communicate results of investigations by displaying data in the form of tables, charts, and graphs. Students will construct bar and picture graphs and line plots to display data. (Example: 3.7 — comparison of types of soil and their effect on plant growth)
* Classify objects into at least two major sets and subsets based on similar characteristics, such as predator/prey and herbivore, carnivore, and omnivore
* Make and explain bar and pie graphs.
* Draw maps of familiar objects or areas.
* Construct and explain simple charts.
* In order to meet this standard, it is expected that students should be able to
* Develop hypotheses from simple questions. These questions should be related to the concepts in the third grade standards. Hypotheses should be stated in terms such as: “If an object is cut into smaller pieces, then the physical properties of the object and its smaller pieces will remain the same.”
* Make and communicate predictions about the outcomes of investigations.
* make and communicate careful observations.
* communicate results of investigations by displaying data in the form of tables, charts, and graphs. Students will construct bar and picture graphs and line plots to display data. (Example: 3.7 — comparison of types of soil and their effect on plant growth)
* classify objects into at least two major sets and subsets based on similar characteristics, such as predator/prey and herbivore, carnivore, and omnivore.
* sequence natural events chronologically. (Example: 3.9 — plant and animal life cycles, phases of the moon, the water cycle, and tidal change)

**Essential Knowledge, Skills, and Processes*** measure length to the nearest centimeter, mass to the nearest gram, volume to the nearest milliliter, temperature to the nearest degree Celsius, and time to the nearest minute, using the appropriate instrument.
* identify and differentiate the six types of simple machines: lever, screw, pulley, wheel and axle, inclined plane, and wedge.
* analyze the application of and explain the function of each of the six types of simple machines. An example would be that an inclined plane is a ramp to make it easier for a heavy object to be moved up or down.
* differentiate and classify specific examples of simple machines found in school and household items. These include a screwdriver, nutcracker, screw, flagpole pulley, ramp, and seesaw.
* design and construct an apparatus that contains a simple machine.
* identify and classify the simple machines which compose a compound machine, such as scissors, wheelbarrow, and bicycle.
* describe and explain the terms hibernation, migration, camouflage, mimicry, instinct, and learned behavior.
* give examples of methods that animals use to gather and store food, find shelter, defend themselves, and rear young.
* compare the physical characteristics of animals, and explain how the animals are adapted to a certain environment.
* explain how an animal’s behavioral adaptations help it live in its specific habitat.
* design and construct a model of a habitat for an animal with a specific adaptation.
* Distinguish between physical and behavioral adaptations of animals.
* Create (model) a camouflage pattern for an animal living in a specific dry-land or water-related environment. (Relates to 3.6.)
* Compare and contrast instinct and learned behavior.
* Distinguish among producers, consumers, herbivores, omnivores, carnivores, and decomposers.
* Create and interpret a model of a food chain showing producers and consumers.
* Explain how a change in one part of a food chain might affect the rest of the food chain.
* Identify sequences of feeding relationships in a food chain.
* Differentiate between predators and prey.
* Infer that most food chains begin with a green plant.
* Describe major water-related environments and examples of animals and plants that live in each.
* Describe major dry-land environments and examples of animals and plants that live in each.
* Compare and contrast water-related and dry-land environments.
* distinguish between a population and a community.
* explain how animals and plants use resources in their environment.
* analyze models or diagrams of different water-related environments in order to describe the community of organisms each contains and interpret how the organisms use the resources in that environment.
* analyze models or diagrams of different dry-land environments in order to describe the community of organisms each contains and interpret how the organisms use the resources in that environment.
* predict what would occur if a population in a specific environment were to die
 | * Which senses help us study the diversity of different countries?
* What characteristics could we use to classify information about Greece, Mali, and Rome?
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| **SOCIAL STUDIES** |
| **Driving Objectives:** | **Essential Understanding:** | **Essential Skills:** | **Essential Questions:** |
| **3.4 Map Skills****The student will develop map skills by**a) locating Greece, Rome, and West Africa;b) describing the physical and human characteristics of Greece, Rome, and West Africa;c) explaining how the people of Greece, Rome, and West Africa adapted to and/or changed their environment to meet their needs.**3.5a Map Skills****The student will position and label the seven continents and five oceans to create a world map;** **3.5b Map Skills** **using the equator and prime meridian to identify the Northern, Southern, Eastern, and Western Hemispheres****3.5e locating specific places, using a simple letter-number grid system.****3.6 The student will read and construct Maps, Charts, Graphs****3.12 Diversity****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.****SOL 3.10****The student will recognize the importance of government in the community, Virginia, and the United States of America by**a) explaining the purpose of rules and laws; | * Ancient Greece and Rome were located on land near the Mediterranean Sea. The empire of Mali was located in the western region of the continent of Africa.
* **Physical characteristics**
* Ancient Greece: Located on a peninsula with many islands, mountains, and hills; surrounded by the Mediterranean Sea; had limited rich soil
* Ancient Rome: Located next to a river; built on many hills; had limited rich soil
* Empire of Mali: Located in West Africa near rivers and in a grassland region; had gold mines
* **Human characteristics**
* Ancient Greece: Farmers, shipbuilders, traders
* Ancient Rome: Farmers, road builders, traders
* Empire of Mali: Farmers, miners, traders
* **Ways people adapted to their environments**
* Ancient Greece: They farmed on hillsides; trading took place on the Mediterranean Sea; small, independent communities developed because of the many mountains.
* Ancient Rome: They farmed on hillsides; trading took place on the Mediterranean Sea.
* Empire of Mali: Salt was an important natural resource needed in Mali. Gold from Mali was traded for salt.
* Maps, tables, graphs, charts, and pictures can be read and constructed to gather and display information.
* Maps are used to display information geographically.
* Maps, tables, graphs, charts, and pictures are visual aids used to gather, display, and classify geographic information.

Parts of a map* Map title
* Map legend
* Compass rose
* Maps may include a compass rose with the intermediate directions of northeast, southeast, northwest, and southwest.
* The equator and the prime meridian divide the globe into four hemispheres.
* The four hemispheres are Northern, Southern, Eastern, and Western.
* A simple letter-number grid system on maps is used to locate places.
* The American people come from diverse ethnic and national origins and are united as Americans by basic American principles.
* Being an American is defined by the shared basic principles of the republican form of government.
* Terms to know
* Republican form of government: A representative democracy
* The American people come from different ethnic origins and different countries, but are united as Americans by the basic principles of a republican form of government, including individual rights to life, liberty, and the pursuit of happiness; and equality under the law.
* Benefits of diversity
* Food
* Clothing
* Music
* The physical shapes of the continents (North America, South America, Europe, Asia, Africa, Australia, Antarctica) and the positions of the five oceans (Arctic, Atlantic, Indian, Pacific, and Southern) may be located on a world map.
* The equator and the prime meridian are used to create the Northern, Southern, Eastern, and Western Hemispheres.
* England, Spain, and France are located on the continent of Europe. The United States is located on the continent of North America.
* San Salvador is located in the general area of the Bahamas. St. Augustine is located in northern Florida. Québec is located in Canada. Jamestown is located in Virginia.
* The letter (on the left) and number (at the bottom) coordinates of a grid system identify the approximate location of a place.
* The purpose of rules and laws is to keep people safe and maintain order.
 | * Identify and locate features on a map and globe.
* Locate and use information from print and nonprint sources.

Maps, tables, graphs, charts, and pictures are visual aids used to gather, display, and classify geographic information.Parts of a map* Map title
* Map legend
* Compass rose
* Maps may include a compass rose with the intermediate directions of northeast, southeast, northwest, and southwest.
* Differentiate between points of view by self and others.
* Participate in groups and democratic society.
* Make generalizations about data.
* Locate places on maps, using a simple letter-number grid system.
* Identify and locate continents, oceans, and major features on maps and globes.
* Draw maps of familiar areas.
* Compare and contrast differing sets of ideas, values, personalities, behaviors, and institutions.
* Gather, classify, and interpret information.
* Explain cause-and-effect relationships.
 | * Where were ancient Greece, ancient Rome, and the empire of Mali located?
* What were the physical and human characteristics of ancient Greece and Rome and West Africa (Mali)?
* How did the people of ancient Greece, ancient Rome, and Mali adapt to and/or change their environment to meet their needs?
* What visual aids can be used to gather, display, and classify information?
* What unites the people of the United States?
* What are some benefits of diversity in the United States?
* What imaginary lines are used to define hemispheres?
* What are the names of the four hemispheres?
* On which continents are England, Spain, France, and the United States located?
* Where are the countries of England, Spain, and France located on a world map?
* Where are the regions (general areas) of San Salvador in the Bahamas; St. Augustine, Florida; Québec, Canada; and Jamestown, Virginia, located on a map?
* How is a simple letter-number grid system used to locate places on maps?
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| **Math** |
| **Driving Objectives:** | **Essential Understanding:** | **Essential Skills:** | **Essential Questions:** |
| **SOL 3.1** **Number and Number Sense** The student willa) read and write six-digit numerals and identify the place value and value of each digit;b) round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand; andc) compare two whole numbers between 0 and 9,999, using symbols (>, <, or = ) and words (*greater than,* *less than*, or *equal to*).**SOL 3.17 Data** The student will1. collect and organize data, using observations, measurements, surveys, or experiments;
 | * Understand how data can be collected and organized.
* Understand that data can be displayed in different types of graphs depending on the data.
 | The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to* Formulate questions to investigate.
* Design data investigations to answer formulated questions, limiting the number of categories for data collection to four.
* Collect data, using surveys, polls, questionnaires, scientific experiments, and observations.
 | * How can graphing data help us compare and organize information?
* How can information on diverse organisms be organized?
* How can using charts, graphs and tables be used to organize data on the plant growth in garden?
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| **Reading** |
| **Driving Objectives:** | **Essential Understanding:** | **Essential Skills:** | **Essential Questions:** |
| * **3.1 The student will use effective communication skills in group activities.**
* a) Listen attentively by making eye contact, facing the speaker, asking questions, and summarizing what is said.
* b) Ask and respond to questions from teachers and other group members.
* c) Explain what has been learned.
* **3.2 The student will present brief oral reports.**
* a) Speak clearly.
* b) Use appropriate volume and pitch.
* c) Speak at an understandable rate.
* d) Organize ideas sequentially or around major points of information.
* e) Use grammatically correct language and specific vocabulary to communicate ideas.
* 3.7 The student will demonstrate comprehension of information from a variety of print resources.
* a) Use dictionary, glossary, thesaurus, encyclopedia, and other reference books, including online reference materials.
* b) Use available technology.
 | * participate effectively in group activities by taking turns in conversations and moving group discussions forward
* cluster or sequence information on a topic when presenting an oral report
* speak clearly at an understandable rate and volume.
* understand ways to select the best resource for gathering information on a given topic.
 | * Engage in taking turns in conversations by
* Make certain all group members have an opportunity to contribute
* Listen attentively by making eye contact while facing the speaker
* Elicit information or opinions from others
* Support opinions with appropriate ideas, examples, and details
* Indicate disagreement in a constructive manner
* Take initiative in moving a group discussion forward by
* Contribute information that is on topic
* Answer questions
* Ask clarifying questions of the speaker
* Summarize the conclusions reached in the discussion
* Explain what has been learned.
* Deliver oral presentations in an engaging manner that maintains audience interest by
* presenting information with expression and confidence
* varying tone, pitch, and volume to convey meaning
* using grammatically correct language
* speaking at an understandable rate
* using specific vocabulary appropriate for the audience and the topic
* Stay on topic during presentations
* Organize ideas sequentially or around major points of information
* Answer questions from the audience
* Evaluate their own presentations, using class-designed criteria
* Make decisions about which resource is best for locating a given type of information
* Locate selected information in glossaries, dictionaries, thesauruses, encyclopedias, atlases, and other print and online reference materials
* Retrieve information from electronic sources
* Use the Internet to find information on a given topic
* Use a printer to create hard copies of information retrieved from electronic sources.
 | * In what ways can you effectively capture the attention of audience?
* How can you make your presentation a learning experience for other students?
* How can using different resources help you find and gather information on different topics?
* How can ideas be organized around major points of information?
* What verbal skills promote effective oral communication?
* How can informative print be used to research a given topic?
* How does technology impact research?

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| **Writing** |
| **Driving Objectives:** | **Essential Understanding:** | **Essential Skills:** | **Essential Questions:** |
| 3.9The student will writedescriptive paragraphs.a) Develop a plan for writing.b) Focus on a central idea.c) Group related ideas.d) Include descriptive details that elaborate the central idea.e) Revise writing for clarity.3.10 The student will writestories, letters, simpleexplanations, and shortreports across all contentareas.a) Use a variety of planning strategies.b) Organize information according to the type of writing.c) Identify the intended audience.d) Revise writing for specific vocabulary and information.e) Use available technology.**3.11 The student will edit writing for correct grammar, capitalization, punctuation, and spelling.**a) Use complete and varied sentences.b) Use the word *I* in compound subjects.c) Use past and present verb tense.d) Use singular possessives.e) Use commas in a simple series.f) Use simple abbreviationsg) Use apostrophes in contractions with pronouns.h) Use correct spelling for high-frequency sight words, including irregular plurals. | * Understand how to plan and compose a descriptive paragraph.
* Understand how to plan and compose stories, friendly letters, simple explanations, and short reports
* Understand that grammatically correct language and mechanics contribute to the meaning of writing.
 | To be successful with this standard, students are expected to* Generate ideas and develop a plan for writing
* Focus on a central topic and group related ideas
* Select specific details of sight, sound, touch, taste, and smell in order to paint a verbal picture of a person, place, thing, or event
* Use examples from their reading as models to imitate in their writing
* Create verbal pictures, using precise nouns, verbs, and adjectives, that elaborate ideas within a sentence
* Describe events, ideas, and personal stories with accurate details and sequence
* Read their own writing orally to check for sentence rhythm (sentence variety)
* Select information that the audience will find interesting or entertaining
* Revise to eliminate details that do not develop the central idea
* Incorporate transitional (signal) words that clarify sequence, such as *first*, *next*, and *last*
* Apply knowledge of the writing domains of composing, written expression, and usage/ mechanics.
* Generate ideas and plan writing by
* using ideas from class brainstorming activities
* making lists of information
* talking to classmates about what to write
* reading texts by peer and professional authors
* using a cluster diagram, story map, or other graphic organizer
* selecting an appropriate writing form for nonfiction writing (such as explanation, directions, simple report), expressive writing (such as narrative, reflection, and letter), and creative writing (such as fiction and poetry)
* Identify the intended audience
* Follow the organization of particular forms of writing for
* stories – beginning, middle, and end
* letters – date, greeting, body, and closing
* explanations – opening; information presented in a way to show the relationship of ideas, such as chronological order; and closing
* short reports – opening, grouping of like information into clear paragraphs, ordering of paragraphs so that there is a logical flow of information, and closing
* Clarify writing when revising by including specific vocabulary and information

-use available technology to write.* use complete sentences
* use the word *I* in compound subjects
* use past and present verb tenses
* use singular possessives
* use simple abbreviations
* use correct spelling for frequently used words, including irregular plurals, e.g., *men, children*
* Punctuate correctly
* commas in a simple series

 apostrophes in contractions  with pronouns, e.g., *I’d,*  *we’ve*. | * In what ways can you organize your facts to make your information interesting and understandable for your audience?
* What are the steps in the writing process?
* How can writing support communication with students in other communities?
 |

References

VA DOE Science Enhanced Scope & Sequence

VA DOE History/ Social Science Enhanced Scope & Sequence

VA DOE Math Enhanced Scope & Sequence

Richmond City Public Schools Learning Portal

[www.solpass.org](http://www.solpass.org)

[www.unitedstreaming.com](http://www.unitedstreaming.com)