

**Quarterly Environmental Theme: How do our choices influence the future?**  
**4<sup>th</sup> Grade Essential Question: How can composting impact the Chesapeake Bay Watershed?**

**Standards of Learning:**

ENVIRONMENT	<p><b>Standard 1:</b>  <b>Ecological, Social, and Economic Systems</b>                  Students develop knowledge of the interconnections and interdependency of ecological, social, and economic systems. They demonstrate understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, and global levels.</p>	<p><b><u>Related Environmental Activities:</u></b></p> <p><u>Be a watershed</u> (Agriculture in the Classroom) This lesson plan was designed to help students understand how water moves through a watershed. Students will use a variety of cups (different sizes) to simulate water moving through a watershed.</p> <p>PLT Activity 57 <u>Democracy in Action</u> – Students will examine personal opinions or preconceived notions of two citizen groups, special interest groups, or government agencies involved in the same issues.</p> <p>PLT Activity n58 <u>There Ought To Be a Law</u> –Students will propose a new law and describe the process needed to put it together</p>
	<p><b>Standard 2:</b>  <b>The Natural and Built Environment</b>                  Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments.</p>	
	<p><b>Standard 3:</b>  <b>Sustainability and Civic Responsibility</b>                  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.</p>	

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**4<sup>th</sup> Grade Essential Question: How can composting impact the Chesapeake Bay Watershed?**

**Standards of Learning:**

**SCIENCE**

**Resources**

- 4.8 The student will investigate and understand important Virginia natural resources. Key concepts include
- a) watershed and water resources;
  - b) animals and plants;
  - c) minerals, rocks, ores, and energy sources; and
  - d) forests, soil, and land.

**Related Environmental Objectives:**

- Work with other members of a team to apply the full process of technological design and relevant science concepts to solving a problem.
  
- Provide examples of human practices that directly depend on the cycles and processes involving decomposers in terrestrial, freshwater, coastal and marine ecosystems (e.g., their role in food production and waste management).
  
- Analyze a system in terms of subsystems functions as well as input and outputs

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**Standards of Learning:**

**SOCIAL STUDIES**

- VS.9 The student will demonstrate knowledge of twentieth- and twenty-first-century Virginia by
- a) describing the economic and social transition from a rural, agricultural society to a more urban, industrialized society, including the reasons people came to Virginia from other states and countries;
  - b) identifying the impact of Virginians, such as Woodrow Wilson and George C. Marshall, on international events;
  - c) identifying the social and political events in Virginia linked to desegregation and Massive Resistance and their relationship to national history;
  - d) identifying the political, social, and/or economic contributions made by Maggie L. Walker; Harry F. Byrd, Sr.; Oliver W. Hill; Arthur R. Ashe, Jr.; A. Linwood Holton, Jr.; and L. Douglas Wilder.
- VS.10 The student will demonstrate knowledge of government, geography, and economics by
- a) identifying the three branches of Virginia government and the function of each;
  - b) describing the major products and industries of Virginia’s five geographic regions;
  - c) explaining how advances in transportation, communications, and technology have contributed to Virginia’s prosperity and role in the global economy.

**Related Environmental Objectives:**

**EALR 2: Economics**

**2.2 Understands how economic systems function.**

2.2.1 Understands the basic elements of Virginia’s economic system, including agriculture, businesses, industry, natural resources, and labor.

**EALR 2: Economics**

**2.4 Understands the economic issues and problems that all societies face.**

2.4.1 Understands how geography, natural resources, climate, and available labor contribute to the sustainability of the economy of regions in the Commonwealth of Virginia.

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**Standards of Learning:**

**READING**

- 4.3 The student will read fiction and nonfiction with fluency and accuracy.  
 d) Use word-reference materials, including the glossary, dictionary, and thesaurus.
- 4.6 The student will demonstrate comprehension of information resources to research a topic.  
 a) Construct questions about a topic.  
 b) Collect information, using the resources of the media center, including online, print, and media resources.  
 c) Evaluate and synthesize information.

**Guided Reading Text:  
 (From Fountas and Pinnell Libraries)**

**DRA 30-40**

Alfie the Apostrophe N  
 Comic Guy: Our Crazy Class Election N  
*Rosa Parks: Freedom Rider* O  
 Can You Fly High, Wright Brothers? O  
 Jake Drake, Know-It-All O  
 The Patchwork Quilt O

**DRA 40-50**

Copper Q  
 American Tall Tales Q  
 Wackiest White House Pets R  
 When Marian Sang R  
 The Water Cycle S  
 The Civil Rights Movement in America S

**DRA >60**

The Challenger Disaster U  
 The Life and Death of Stars U  
 Remember the Ladies: 100 Great American Women U  
 September 11, 2001 U  
 The Watsons Go to Birmingham—1963 U

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**4<sup>th</sup> Grade Essential Question: How can composting impact the Chesapeake Bay Watershed?**

**Standards of Learning:**

**WRITING**

- 4.7 The student will write effective narratives, poems, and explanations.
- a) Focus on one aspect of a topic.
  - b) Develop a plan for writing.
  - c) Organize writing to convey a central idea.
  - d) Write several related paragraphs on the same topic.
  - e) Utilize elements of style, including word choice and sentence variation.
  - g) Use available technology.

Students will write a research paper.

Resources for writing a [report](#).

Based on Lucy Calkins Units of Study - [Report and Research Writing](#)

**Related Inquiry Unit Texts:**

**(From Making Meaning and Being a Writer Trade Libraries)**

- A Picture Book of Jackie Robinson David A. Adler
- Heroes Ken Mochizuk
- Eleanor Barbara Cooney
- The Bicycle Man Allen Say
- Tar Beach Faith Ringgold

**Related Environmental Activities:**

The students will:

- Write letters to environmental scientist to ask for first person information concerning Virginia's water resources
- Write a mock bill to present to Virginia's State Assembly. The bill should impact the health of the Chesapeake Bay Watershed.
- Keep a daily log of school and home composting activities

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**Standards of Learning:**

**MATHEMATICS**

Focus: Outcomes and Data

- 4.13 The student will  
 a) predict the likelihood of an outcome of a simple event; and  
 b) represent probability as a number between 0 and 1, inclusive.
- 4.14 The student will collect, organize, display, and interpret data from a variety of graphs.

Focus: Geometric Patterns, Equality, and Properties

- 4.15 The student will recognize, create, and extend numerical and geometric patterns.
- 4.16 The student will  
 a) recognize and demonstrate the meaning of equality in an equation; and  
 b) investigate and describe the associative property for addition and multiplication.

**Related Environmental Activities:**

The students will:

- Graph water temperature of Reedy Creek
- Graph types of trees, insects and other organisms in Forest Hill Park
- Predict likelihood if seeing different animals based on weather conditions
- Collect different leaves and rocks and predicted likelihood of choosing one based on amount collected.

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**Standards of Learning:**

**ART**

- 4.19 The student will compare and contrast abstract, representational, and nonrepresentational works of art.
- 4.20 The student will identify and investigate ways that works of art from popular culture reflect the past and influence the present.
- 4.21 The student will support the selection of a work of art, using appropriate art vocabulary.
- 4.22 The student will compare and contrast works of art by genre.

**Related Environmental Objectives:**

Earth materials are formed by various natural processes and can be used in different ways.

Engages others in discussions that attempt to clarify and address multiple viewpoints on public issues based on key ideals.

**Related Environmental Activities:**

The students will:

- Evaluate the artwork of 20<sup>th</sup> century artists, and how art can be used to bring an awareness to global issues
- Use art terminology to choose artwork to include in the 4<sup>th</sup> and 5<sup>th</sup> grade wax museum.
- Analyze the work of Andy Goldworthy, Agnes Denes, and other environmental artist.

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**Standards of Learning:**

**MUSIC**

- 4.5 The student will perform in a two-part musical ensemble, using pitched and non-pitched instruments.
- 4.6 The student will play I, IV, and V (or V<sup>7</sup>) chords to accompany a three-chord melody.
- 4.7 The student will create music through a variety of experiences.
  1. Improvise simple melodic and rhythmic accompaniments.
  2. Create melodic or rhythmic motives to enhance literature, using a variety of sound sources, including technology.
  3. Create movement to illustrate meter and form.

**Related Environmental Objectives:**

Earth materials are formed by various natural processes and can be used in different ways.

**Related Environmental Activities:**

The students will:

- Use water and jars to create pitch instruments
- Evaluate how water has played an important theme in music (rain dances, harvest celebrations etc.)



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**Standards of Learning:**

**HEALTH & PE**

Phys. Ed 4.1The student will refine movement skills and demonstrate the ability to combine them in increasingly complex movement activities.

Demonstrate moving to a rhythm (e.g., perform a variety of educational dances with different international and regional American formations; create educational dances with apparent beginning, middle, and end, combining shapes, levels, pathways, and locomotor patterns).

Perform smooth flowing sequences that combine four or more of the following movements: traveling, balancing, rolling, and other types of weight transfer.

Health4.6The student will evaluate his/her role in identifying solutions to community health problems. Key concepts/skills include  
 a) the benefits of volunteering.

**Related Environmental Objectives:**

Earth materials are formed by various natural processes and can be used in different ways.

Engages others in discussions that attempt to clarify and address multiple viewpoints on public issues based on key ideals.

**Related Environmental Activities:**

The students will:

- Learn American dances that are related to agricultural seasons (i.e. square dancing during harvest)
- Choreograph dances inspired by cycles found in nature
- Encourage PHSSA community to practice composting

# INSTRUCTIONAL ELEMENTS

Key Vocabulary		Instructional Strategies	Instructional Materials	Technology
Watershed Composting Nutrient erosion minerals conservation	Jim Crow Civil Rights Segregation Integration Supreme Court Massive Resistance Executive Legislative Judicial Bill Toll Road Congress Representative Economy Tourism	<ul style="list-style-type: none"> <li>• Integrating content into</li> <li>• Language Arts activities</li> <li>• Author/Illustrator studies</li> <li>• Literature Circles</li> <li>• Web-Quest</li> <li>• Experiential learning (project-based)</li> <li>• Direct instruction</li> <li>• Small Group</li> <li>• Reflective discussions</li> <li>• Comparing/contrasting</li> <li>• Peer partner editing</li> <li>• Field Trips                             <ul style="list-style-type: none"> <li>○ Science Museum</li> <li>○ New Kent Forestry Center</li> <li>○ Channel 12 News</li> </ul> </li> <li>• Studio</li> </ul>	<ul style="list-style-type: none"> <li>• Websites referenced in VDOE</li> <li>• scope and sequence</li> <li>• Natural materials from Forest</li> <li>• Hill Park</li> <li>• Related texts</li> <li>• Assessment resources</li> <li>• Graphic organizers</li> <li>• Project Learning Tree guide</li> <li>• VA Studies CD</li> <li>• Computers</li> <li>• Video Camera</li> <li>• Maps of VA</li> <li>• Journals</li> <li>• Charts and Graphs</li> <li>• LCD Projector</li> <li>• Crayons, markers, paints</li> <li>• Rulers</li> <li>• White boards and markers</li> <li>• Foldables</li> <li>• Index cards</li> <li>• Self-stick notes</li> <li>• reusable materials</li> </ul>	<ul style="list-style-type: none"> <li>• Webquest</li> <li>• United Streaming</li> <li>• Powerpoint</li> <li>• Wikispaces – to plan/ share information</li> <li>• Blogspot</li> <li>• Audacity – to create podcast</li> <li>• VA Trekkers</li> </ul>
Likelihood Probably Impossible Probability Outcome Associative Commutative Identity				

## INQUIRY PROJECT & CULMINATING ACTIVITY

### **Goal:**

The 4<sup>th</sup> grade classes will work together to research significant contributors to science, history, and mathematics then plan and execute a wax museum.

### **Elements:**

- a) The students will choose a topic of personal interest based on the content learned throughout the school year
- b) Appropriately conduct an internet search, and gather information from other resources including primary sources
- c) The students will take notes and synthesize information
- d) Students will interpret ideas and make visual representations of topical issues
- e) Students will keep daily records of information learned about selected topic
- f) Develop and play series of review games of concepts learned during 4<sup>th</sup> grade
- g) Use appropriate technology to create timelines

### **Pacing:**

This project will be executed in 9 weeks. In class work will be completed during the inquiry 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.

# ENVIRONMENT

<b>Driving Objectives:</b>	<b>Essential Understanding:</b>	<b>Essential Skills:</b>	<b>Essential Questions:</b>
<p>Understands the basic elements of Virginia’s economic system, including agriculture, businesses, industry, natural resources, and labor.</p> <p>Identify how humans and human communities benefit from the dynamic nature of rivers and streams in ways that are essential to human life and to the functioning of our economies and cultures</p> <p>Describe how humans and human communities are influenced by soil erosion, sediment transport, course changes and flooding of rivers and streams (e.g., food production, housing construction).</p> <p>Provide examples of how human activities can influence the flow of rivers and streams.</p>	<p>A watershed is an area over which surface water (and the materials it carries) flows to a single collection place.</p> <p>Virginia’s water resources include groundwater, lakes, reservoirs, rivers, bays, and the Atlantic Ocean.</p> <p>Natural and cultivated forests are a widespread resource in Virginia.</p> <p>Virginia’s soil and land support a great variety of life, provide space for many economic activities, and offer a variety of recreational opportunities.</p> <p>Certain products and industries characterize each of Virginia’s 5 regions.</p> <p>Advances in transportation, communications, and technology have facilitated migration and led to economic development in Virginia.</p> <p>Industries in Virginia produce goods and services used throughout the United States</p>	<p>Model how water runs into a watershed.</p> <p>Analyze the economy of Virginia in each of the 5 regions.</p> <p>Determine cause and effect relationships between human actions and natural resource supplies.</p> <p>Identify Virginia’s water resources on a map.</p> <p>Research Environmentalist who is impacting water resources.</p> <p>Identify materials that can be composted and those that cannot.</p>	<p>How do our actions impact the Chesapeake Bay watershed?</p> <p>How does Virginia’s economy depend on the water resources including; groundwater, lakes, reservoirs, bays, rivers, and the Atlantic Ocean?</p> <p>What impact does soil erosion have on the Chesapeake Bay watershed?</p> <p>How have changes in Virginia’s economy altered the use of the watershed?</p> <p>Who are famous Virginians working towards</p>

# SCIENCE

Driving Objectives:	Essential Understanding:	Essential Skills:	Essential Questions:
<p>4.4 The student will investigate and understand basic plant anatomy and life processes. Key concepts include</p> <ul style="list-style-type: none"> <li>a) the structures of typical plants (leaves, stems, roots, and flowers);</li> <li>b) processes and structures involved with reproduction (pollination, stamen, pistil, sepal, embryo, spore, and seed);</li> <li>c) photosynthesis (sunlight, chlorophyll, water, carbon dioxide, oxygen, and sugar); and</li> <li>d) dormancy.</li> </ul> <p>4.8 The student will investigate and understand important Virginia natural resources. Key concepts include</p> <ul style="list-style-type: none"> <li>a) watershed and water resources;</li> <li>b) animals and plants;</li> <li>c) minerals, rocks, ores, and energy sources; and</li> <li>d) forests, soil, and land</li> </ul>	<p>Virginia is rich in a wide variety of natural resources, including forests, arable (farmable) land, coal, sand and aggregates (rocks), wildlife and aquatic organisms, clean water and air, and beautiful scenery.</p> <p>A watershed is an area over which surface water (and the materials it carries) flows to a single collection place. The Chesapeake Bay watershed covers approximately half of Virginia’s land area. The other two major watershed systems are the Gulf of Mexico and the North Carolina Sounds.</p> <p>Virginia’s water resources include groundwater, lakes, reservoirs, rivers, bays, and the Atlantic Ocean.</p> <p>Natural and cultivated forests are a widespread resource in Virginia.</p> <p>Virginia’s soil and land support a great variety of life, provide space for many economic activities, and offer a variety of recreational opportunities.</p>	<p>Compare and contrast natural and man-made resources.</p> <p>Distinguish among rivers, lakes, and bays; describe characteristics of each; and name an example of each in Virginia.</p> <p>Create and interpret a model of a watershed. Evaluate the statement: “We all live downstream.”</p> <p>Identify watershed addresses.</p> <p>Recognize the importance of Virginia’s mineral resources, including coal, limestone, granite, and sand and gravel.</p> <p>Appraise the importance of natural and cultivated forests in Virginia.</p> <p>Describe a variety of soil and land uses important in Virginia.</p>	<p>What natural resources are abundant in the state of Virginia?</p> <p>What are Virginia’s water resources?</p> <p>Where are Virginia’s mineral resources located?</p> <p>How can we protect our watershed?</p> <p>How does human behavior impact our watershed?</p> <p>How do Virginia’s resources support the economy of the state?</p>

## SOCIAL STUDIES

Driving Objectives:	Essential Understanding:	Essential Skills:	Essential Questions:
<p>VS.9 The student will demonstrate knowledge of twentieth- and twenty-first-century Virginia by</p> <p>a) describing the economic and social transition from a rural, agricultural society to a more urban, industrialized society, including the reasons people came to Virginia from other states and countries;</p> <p>b) identifying the impact of Virginians, such as Woodrow Wilson and George C. Marshall, on international events;</p> <p>c) identifying the social and political events in Virginia linked to desegregation and Massive Resistance and their relationship to national history;</p> <p>d) identifying the political, social, and/or economic contributions made by Maggie L. Walker; Harry F. Byrd, Sr.; Oliver W. Hill; Arthur R. Ashe, Jr.; A. Linwood Holton, Jr.; and</p>	<p>During the twentieth and twenty-first centuries, Virginia changed from a rural, agricultural society to a more urban, industrialized society.</p> <p>Two famous Virginians, Woodrow Wilson and George C. Marshall, were important national and international leaders.</p> <p>After World War II, African Americans demanded equal treatment and the recognition of their rights as American citizens.</p> <p>As a result of the Civil Rights Movement, laws were passed that made racial discrimination illegal</p> <p>Many individuals made political, social, and/or economic contributions to life in Virginia in the twentieth and twenty-first centuries.</p> <p>Virginia state government is made up of three parts (branches) that ensure Virginia laws agree with the state constitution.</p> <p>Certain products and industries characterize each of Virginia’s 5 regions.</p> <p>Advances in transportation,</p>	<p>Determine cause-and-effect relationships. (VS.1b)</p> <p>Draw conclusions and make generalizations. (VS.1d)</p> <p>Make connections between past and present. (VS.1e)</p> <p>Interpret ideas and events from different historical perspectives. (VS.1g)</p> <p>Analyze and interpret maps to explain relationships among landforms, water features, climatic characteristics, and historical events. (VS.1i)</p>	<p>Why did Virginia change from an agricultural to a more industrialized society?</p> <p>How did Woodrow Wilson and John Marshall’s actions impact international events?</p> <p>What changes occurred in Virginia as a result of the Civil Rights Movement?</p> <p>What contributions to life in Virginia in the 20<sup>th</sup> and 21<sup>st</sup> centuries were made by Maggie L. Walker; Harry F. Byrd, Sr.; Oliver W. Hill; Arthur R. Ashe, Jr.; A. Linwood Holton, Jr.; and L. Douglas Wilder?</p> <p>What are the three branches of government in Virginia, and what are the powers of each branch?</p> <p>What are the major products and industries of each region in Virginia?</p> <p>How have advances in transportation facilitated migration and economic growth?</p> <p>How have advances in communications and technology</p>

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<p>L. Douglas Wilder.</p> <p>The student will demonstrate knowledge of government, geography, and economics by</p> <ul style="list-style-type: none"> <li>a) identifying the three branches of Virginia government and the function of each;</li> <li>b) describing the major products and industries of Virginia's five geographic regions;</li> <li>c) explaining how advances in transportation, communications, and technology have contributed to Virginia's prosperity and role in the global economy.</li> </ul>	<p>communications, and technology have facilitated migration and led to economic development in Virginia.</p> <p>Industries in Virginia produce goods and services used throughout the United States.</p>		<p>helped the economy of Virginia grow?</p> <p>In what ways is Virginia part of the U.S. economy?</p>
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# MATHEMATICS

Driving Objectives	Essential Understandings	Essential Skills	Essential Questions
<p>4.13 The student will</p> <p>a) predict the likelihood of an outcome of a simple event; and</p> <p>b) represent probability as a number between 0 and 1, inclusive.</p> <p>4.14 The student will collect, organize, display, and interpret data from a variety of graphs.</p> <p>Focus: Geometric Patterns, Equality, and Properties</p> <p>4.15 The student will recognize, create, and extend numerical and geometric patterns.</p> <p>4.16 The student will</p> <p>a) recognize and demonstrate the meaning of equality in an equation; and</p> <p>b) investigate and describe the associative property for addition and multiplication.</p>	<ul style="list-style-type: none"> <li>• Understand and apply basic concepts of probability.</li> <li>• Describe events as likely or unlikely and discuss the degree of likelihood, using the terms <i>certain</i>, <i>likely</i>, <i>equally likely</i>, <i>unlikely</i>, and <i>impossible</i>.</li> <li>• Predict the likelihood of an outcome of a simple event and test the prediction.</li> <li>• Understand that the measure of the probability of an event can be represented by a number between 0 and 1, inclusive.</li> <li>• Understand the difference between representing categorical data and representing numerical data.</li> <li>• Understand that line graphs show change over time (numerical data).</li> <li>• Understand that bar graphs should be used to compare counts of different categories (categorical data).</li> <li>• Understand how data displayed in bar and line graphs can be interpreted so that informed decisions can be made.</li> <li>• Understand that the title and labels of the graph provide the foundation for interpreting the data.</li> <li>• Understand that mathematical</li> </ul>	<ul style="list-style-type: none"> <li>• Model and determine all possible outcomes of a given simple event where there are no more than 24 possible outcomes, using a variety of manipulatives, such as coins, number cubes, and spinners.</li> <li>• Write the probability of a given simple event as a fraction, where the total number of possible outcomes is 24 or fewer.</li> <li>• Identify the likelihood of an event occurring and relate it to its fractional representation (e.g., impossible/0; equally likely/<math>\frac{1}{2}</math>; certain/1).</li> <li>• Determine the outcome of an event that is least likely to occur (less than half) or most likely to occur (greater than half) when the number of possible outcomes is 24 or less.</li> <li>• Represent probability as a point between 0 and 1, inclusively, on a number line.</li> <li>• Define and identify properties of polygons with 10 or fewer sides.</li> <li>• Identify polygons by name with 10 or fewer sides in multiple orientations (rotations, reflections, and translations of the polygons).</li> </ul>	<p>How can you determine the likelihood of an event?</p> <p>How are probability and fractions related?</p> <p>How is probability measured?</p> <p>In what ways can data be displayed?</p> <p>How can equations be applied to solve real-life problems?</p>



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	<p>relationships can be expressed using equations.</p> <ul style="list-style-type: none"><li>• Understand that quantities on both sides of an equation must be equal.</li><li>• Understand that the associative property for addition means you can change the groupings of three or more addends without changing the sum.</li><li>• Understand that the associative property for multiplication means you can change the groupings of three or more factors without changing the product.</li></ul>		
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## LANGUAGE ARTS

Driving Objectives	Essential Understandings	Essential Skills	Essential Questions
<p>4.3 The student will read fiction and nonfiction with fluency and accuracy. d) Use word-reference materials, including the glossary, dictionary, and thesaurus.</p> <p>4.6 The student will demonstrate comprehension of information resources to research a topic.</p> <p>a) Construct questions about a topic. b) Collect information, using the resources of the media center, including online, print, and media resources. c) Evaluate and synthesize information.</p> <p>4.7 The student will write effective narratives, poems, and explanations. a) Focus on one aspect of a topic. b) Develop a plan for writing. c) Organize writing to convey a central idea. d) Write several related paragraphs on the same topic. e) Utilize elements of style, including word choice and sentence variation. g) Use available technology.</p>	<ul style="list-style-type: none"> <li>• use the content and structure of a sentence, paragraph, or reading selection to help determine the meaning of an unfamiliar word</li> <li>• use a variety of strategies and word recognition skills to read fluently</li> <li>• know the type of information found in word reference materials such as a glossary, dictionary, and thesaurus.</li> <li>• formulate initial questions about a topic and seek information by identifying, locating, exploring, and effectively using a variety of sources of information</li> <li>• recognize, organize, and record information pertinent to the topic and blend ideas accurately.</li> </ul>	<ul style="list-style-type: none"> <li>• formulate research questions based on a topic</li> <li>• select and use appropriate references, such as dictionaries, atlases, almanacs, encyclopedias, and thesauruses, including online, print, and media resources</li> <li>• select information that is related to their topic</li> <li>• evaluate and combine (synthesize) related information from two or more sources</li> <li>• identify key terms to use in searching for information</li> <li>• skim to find information related to a topic.</li> </ul>	<p>What are the differences between print, and online resources?</p> <p>How is information synthesized?</p>

<b>RESOURCES</b>		
<b>Community (Field Trips)</b>	<b>Internet</b>	<b>People and Other Resources</b>
<p>Virginia State Capitol – offers tours and guides answers questions about government and how state laws are formed.</p> <p>James River State Park has an environmental Education center which guides tours along the River, and explains how humans impact Virginia’s water resources</p>	<p>The <a href="#">Chesapeake Bay Restoration</a> project gives students an opportunity to track progress, understand careers related to the Bay, and explore the goals of restoring the watershed.</p> <p><a href="#">Recycle now</a>, is an interactive game that allows kids to explore what materials are best for recycling and composting and those which are not.</p> <p>The Virginia Department of Conservation and Recreation lists several resources for students and teachers about the watershed.</p>	<p>A unit on various <a href="#">21<sup>st</sup> century agricultural careers</a>. Written for middle school students, but can be adapted for upper elementary.</p> <p>Outreach programs from the Central Virginia Waste Management Systems. Speakers will come to schools to discuss composting, recycling and other uses for trash.</p> <p>Adopt-a-stream application allows students to work with the VA Department of Conservation and Recreation to teach students to be good environmental stewards The application is available <a href="#">here</a>.</p>