



## Bayville Standards Chart

All of the Bayville interactives are connected to Maryland Voluntary State Curriculum science standards. *Here There Be Monsters* is also connected to standards in the language arts VSC. Those language arts standards are listed below the science VSC charts below.

### Standards sorted by topic/indicator

#### Science

Grade level	VSC topic and indicator	VSC objective	Interactive
<b>1.0 Skills and Processes</b>			
6 - 8	<b>A. Constructing Knowledge</b>  1. Design and carry out simple investigations and formulate appropriate conclusions based on data obtained.	b. Develop the ability to clarify questions and direct them toward objects and phenomena that can be described, explained, or predicted by scientific investigations.	<a href="#">Bay Lab</a>  <a href="#">Here There Be Monsters</a>
		c. Explain and provide examples that hypotheses are valuable, even if they turn out not to be true, if they lead to fruitful investigations.	<a href="#">Here There Be Monsters</a>
		f. Give examples of when further studies of the question being investigated may be necessary.	<a href="#">Here There Be Monsters</a>
6 - 8	<b>B. Applying Evidence and Reasoning</b>  1. Review data from a simple experiment, summarize the data, and construct a logical argument about the cause-and-effect relationships in the experiment.	a. Make a case for accepting the idea that there is no fixed set of steps all scientists follow, scientific investigations usually involve the collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations to make sense of the collected evidence.	<a href="#">Bay Lab</a>
		b. Explain that what people expect to observe often affects what they actually do observe and that scientists know about this danger to objectivity and take steps to try to avoid it when designing investigations and examining data.	<a href="#">Here There Be Monsters</a>
		c. Explain that even though different explanations are given for the same evidence, it is not always possible to tell which one is correct.	<a href="#">Bay Lab</a> <a href="#">Here There Be Monsters</a>



		e. Question claims based on vague statements or on statements made by people outside their area of expertise.	<a href="#">Here There Be Monsters</a>
<b>2.0 Earth and Space Science</b>			
5	<b>A. Materials and Processes that Shape a Planet</b> 2. Cite and describe the processes that cause rapid or slow changes in Earth's surface.	a. Identify and describe events such as tornadoes, hurricanes, volcanic eruptions, earthquakes, and flooding which change surface features rapidly.	<a href="#">The Bay's Muddy History</a> in Cinema Bayville
6	<b>A. Materials and Processes that Shape a Planet</b>  2. Cite evidence to demonstrate and explain that physical weathering and chemical weathering cause changes to Earth materials.	a. Identify examples of physical weathering, such as the effect of wind, ice, etc. and describe the changes caused in each.	<a href="#">The Bay's Muddy History</a> in Cinema Bayville
4	<b>B. Earth History</b>  2. Recognize and explain that fossils provide evidence about the plants and animals that lived long ago and about the nature of the environment at that time.	a. Recognize and explain that the remains or imprints of plants or animals can become fossils.	<a href="#">Treasures of Calvert Cliffs</a> in Cinema Bayville
		c. Identify what an animal or plant fossil is able to tell about the environment in which it lived.	<a href="#">The Bay's Muddy History</a> in Cinema Bayville  <a href="#">Treasures of Calvert Cliffs</a> in Cinema Bayville
8	<b>B. Earth History</b>  2. Recognize and explain that fossils found in layers of sedimentary rock provide evidence of changing life forms.	b. Recognize and explain that the fossil record of plants and animals describes changes over time.	<a href="#">Treasures of Calvert Cliffs</a> in Cinema Bayville
5	<b>E. Interactions of Hydrosphere and Atmosphere</b>	a. Describe how water on Earth changes. <ul style="list-style-type: none"> <li>• Condensation</li> <li>• Precipitation</li> <li>• Evaporation</li> </ul>	<a href="#">H2Oh No!</a>



	1. Recognize and describe that the amount of water on Earth continues to stay the same even though it may change from one form to another.		
		b. Explain that the sun is the main source of energy that causes the changes in the water on Earth.	<a href="#">H2Oh No!</a>
		c. Describe the relationship between the amount of energy from the sun and the quantity of water that is changed.	<a href="#">H2Oh No!</a>
		d. Describe the water cycle.	<a href="#">H2Oh No!</a> <a href="#">Water Flows, Water Woes</a> in Cinema Bayville
8	<b>E. Interactions of Hydrosphere and Atmosphere</b>  1. Describe the properties and structure of the hydrosphere and atmosphere.	a. Recognize and describe the water cycle as the distribution and circulation of Earth's water through the glaciers, surface water, groundwater, oceans, and atmosphere.	<a href="#">H2Oh No!</a> <a href="#">Water Flows, Water Woes</a> in Cinema Bayville
		b. Identify and compare the physical properties of fresh water and salt water.	<a href="#">H2Oh No!</a>
		c. Recognize and describe the function of the layers of Earth's atmosphere.	<a href="#">H2Oh No!</a>
<b>3.0 Life Science</b>			
5	<b>A. Diversity of Life</b> 1. Explain the idea that in any particular environment, some kinds of plants and animals survive well, some less well, and some cannot survive at all.	a. Explain that the survival of individual organisms and entire populations can be affected by sudden (flood, Tsunami) or slow (global warming, air pollution) changes in the environment.	<a href="#">In Green Obscurity</a> (in Cinema Bayville)
		b. Based on observations of features and behaviors of animals and plants from very different environments describe reasons that they might not survive if their environment changed or if they were moved from one environment to another.	<a href="#">Here There Be Monsters</a>
		e. State reasons why certain animals such as whales, salmon, could not survive in the	<a href="#">Here There Be Monsters</a>



		Chesapeake Bay.	
4	<b>D. Evolution</b>  1. Explain that individuals of the same kind differ in their characteristics, and sometimes the differences give individuals an advantage in surviving and reproducing.	a. Describe ways in which organisms in one habitat differ from those in another habitat and consider how these differences help them survive and reproduce.	<a href="#">Bay Quest</a>
		b. Explain that the characteristics of an organism affect its ability to survive and reproduce.	<a href="#">Bay Quest</a>
6	<b>D. Evolution</b>  1. Explain that in any particular environment, the growth and survival of organisms and species depend on the physical conditions.	b. Explain that in all environments-freshwater, marine, forest, desert, grassland, mountain, and others-organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter.	<a href="#">Bay Quest</a>  <a href="#">Bay Lab</a>
		c. Explain that in any particular environment individual organisms with certain traits are more likely than others to survive and have offspring.	<a href="#">Bay Quest</a>
		e. Describe ways in which changes in environmental conditions can affect the survival of individual organisms and entire species.	<a href="#">Bay Lab</a>
8	<b>D. Evolution</b>  1. Recognize and describe that evolutionary change in species over time occurs as a result of natural variation in organisms and environmental changes.	a. Recognize and describe that gradual (climatic) and sudden (floods and fires) changes in environmental conditions affect the survival of organisms and populations.	<a href="#">Bay Lab</a>
7	<b>E. Flow of Matter and Energy</b>  1. Compare how plants and animals meet the need to obtain and utilize food.	f. Provide evidence that supports the premise "In the flow of matter system the total amount of matter remains constant even though its form and location change." <ul style="list-style-type: none"> <li>• Water cycle</li> <li>• Nitrogen cycle</li> <li>• Matter cycle</li> </ul>	<a href="#">H2Oh No!</a>
4	<b>F. Ecology</b>  1. Explain ways that individuals and groups of organisms interact with	a. Identify and describe the interactions of organisms present in a habitat. <ul style="list-style-type: none"> <li>• Competition for space, food, and water</li> <li>• Beneficial interactions: nesting,</li> </ul>	<a href="#">Bay Quest</a>  <a href="#">Meal Deal</a>



	each other and their environment.	<p>pollination, seed dispersal</p> <ul style="list-style-type: none"> <li>Roles within food chains and webs: scavengers, decomposers, etc.</li> </ul>	
		b. Explain that changes in an organism's habitat are sometimes beneficial to it and sometimes harmful.	<p><a href="#">Meal Deal</a></p> <p><a href="#">In Green Obscurity</a> in Cinema Bayville</p>
6	<p><b>F. Ecology</b></p> <p>1. Give reasons supporting the fact that the number of organisms an environment can support depends on the physical conditions and resources available.</p>	a. Explain that populations increase or decrease relative to the availability of resources and the conditions of the environment.	<p><a href="#">Meal Deal</a></p> <p><a href="#">Bay Lab</a></p> <p><a href="#">In Green Obscurity</a> in Cinema Bayville</p> <p><a href="#">Oyster S.O.S.</a> in Cinema Bayville</p> <p><a href="#">The Root of it All</a> in Cinema Bayville</p>
		b. Identify and describe factors that could limit populations within any environment, such as disease, introduction of a nonnative species, depletion of resources, etc.	<p><a href="#">Meal Deal</a></p> <p><a href="#">Bay Lab</a></p> <p><a href="#">In Green Obscurity</a> in Cinema Bayville</p> <p><a href="#">Oyster S.O.S.</a> in Cinema Bayville</p> <p><a href="#">The Root of it All</a> in Cinema Bayville</p>
		c. Explain that within any environment organisms with similar needs may compete with one another for resources.	<p><a href="#">Bay Quest</a></p> <p><a href="#">Meal Deal</a></p>
		d. Cite examples to illustrate that competition is reduced when organisms use different sets of resources, such as birds in a forest eat different kinds and sizes of seeds.	<p><a href="#">Bay Quest</a></p> <p><a href="#">Meal Deal</a></p>
<b>6.0 Environmental Science</b>			
5	<p><b>A. Natural Resources and Human Needs</b></p> <p>1. Recognize and explain how renewable and nonrenewable natural resources are used by humans to meet basic needs.</p>	A. Identify and compare renewable resources and nonrenewable resources.	<p><a href="#">Chesapeake Champs</a></p>
		B. Describe how humans use renewable	<p><a href="#">Chesapeake</a></p>



		natural resources. <ul style="list-style-type: none"> <li>Plants</li> <li>Soil</li> <li>Water</li> <li>Animals</li> </ul>	<a href="#">Champs</a>
		C. Describe how humans use nonrenewable natural resources. <ul style="list-style-type: none"> <li>Oil</li> <li>Coal</li> <li>Natural gas</li> <li>Minerals, including metals</li> </ul>	<a href="#">Chesapeake Champs</a>
6	<b>A. Natural Resources and Human Needs</b>  1. Recognize and compare how different parts of the world have varying amounts and types of natural resources and how the use of those resources impacts environmental quality.	a. Identify and describe natural resources, such as agricultural lands, energy, minerals, water, wildlife, forests, and fisheries.	<a href="#">H2Oh No!</a>  <a href="#">Hope at the Edge 3</a> in Cinema Bayville  <a href="#">Legacy on Winter's Bay</a> in Cinema Bayville
		b. Identify and describe the distribution of natural resources around the Earth	
		c. Identify and describe how the natural change process may be affected by human activities, such as agriculture, beach preservation, mining, development/construction, and stream/river alteration.	<a href="#">H2Oh No!</a>  <a href="#">Hope at the Edge 3</a> in Cinema Bayville  <a href="#">Legacy on Winter's Bay</a> in Cinema Bayville  <a href="#">Chesapeake Champs</a>  <a href="#">Bay Lab</a>
		d. Identify and describe problems associated with obtaining, using, and distributing natural resources.	<a href="#">H2Oh No!</a>  <a href="#">Hope at the Edge 3</a> in Cinema Bayville  <a href="#">Legacy on Winter's Bay</a> in Cinema Bayville  <a href="#">Chesapeake Champs</a>
		e. Identify possible solutions to problems	<a href="#">H2Oh No!</a>





		associated with obtaining, using, and distributing natural resources.	<a href="#">Oyster S.O.S.</a> in Cinema Bayville  <a href="#">Chesapeake Champs</a>
7	<b>A. Natural Resources and Human Needs</b>  1. Recognize and explain the impact of a changing human population on the use of natural resources and on environmental quality.	a. Identify and describe the positive and negative impacts of an increasing human population on the use of natural resources, such as land, fossil fuels, forests, water, wind, minerals, and wildlife.	<a href="#">Chesapeake Past, Chesapeake Future—Parts 1, 2, 3, and 5</a> in Cinema Bayville  <a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>  <a href="#">Bay Lab</a>
4	<b>B. Environmental Issues</b>  1. Recognize and describe that people depend on, change, and are affected by the environment.	a. Identify and describe that human activities in a community or region are affected by environmental factors, such as presence and quality of water, soil type, temperature, and precipitation.	<a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>
5	<b>B. Environmental issues</b>  1. Recognize and explain that decisions influencing the use of natural resources may have benefits, drawbacks, unexpected consequences, and tradeoffs.	a. Identify and describe personal and community behaviors that waste, natural resources and/or cause environmental harm and those behaviors that maintain or improve the environment.	<a href="#">Chesapeake Past, Chesapeake Future, 4</a> in Cinema Bayville  <a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>
		b. Identify and describe that individuals and groups assess and manage risk to the environment differently.	<a href="#">H2Oh No!</a>
5	<b>B. Environmental Issues</b>  2. Recognize and describe that consequences may occur when Earth's natural resources are used.	a. Explain how human activities, such as recycling centers, native plantings in schoolyard habitats, and good farming practices may have positive consequences on the natural environment.	<a href="#">Chesapeake Past, Chesapeake Future, 4</a> in Cinema Bayville  <a href="#">In Green Obscurity</a> in Cinema Bayville  <a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>
		b. Explain how human activities such as damage or destruction done to habitats; air, water, land and/or noise pollution, may have a negative	<a href="#">Chesapeake Past, Chesapeake Future, 4</a> in Cinema Bayville



		<p>consequence on the natural environment.</p>	<p><a href="#">In Green Obscurity</a> in Cinema Bayville</p> <p><a href="#">H2Oh No!</a></p> <p><a href="#">Chesapeake Champs</a></p>
		<p>c. Identify and describe that an environmental issue affects different individuals and groups.</p>	<p><a href="#">H2Oh No!</a></p>
6	<p><b>B. Environmental issues</b></p> <p>1. Recognize and explain that human-caused changes have consequences for the immediate environment as well as for other places and future times.</p>	<p>a. Identify and describe a range of local issues that have an impact on people in other places.</p>	<p><a href="#">H2Oh No!</a></p>
		<p>b. Recognize and describe how environmental change in one part of the world can have consequences for other parts of the world.</p>	<p><a href="#">Chesapeake Past, Chesapeake Future, 3</a> in Cinema Bayville</p> <p><a href="#">Chesapeake Champs</a></p>
		<p>c. Identify and describe that ecosystems can be impacted by human activities, such as resource acquisition and use, land use decisions (agriculture, mining, and development), recycling, and waste disposal.</p>	<p><a href="#">Chesapeake Past, Chesapeake Future, 3</a> in Cinema Bayville</p> <p><a href="#">Chesapeake Champs</a></p>
7	<p><b>B. Environmental Issues</b></p> <p>1. Recognize and describe that environmental changes can have local, regional, and global consequences.</p>	<p>a. Identify and describe a local, regional, or global environmental issue.</p>	<p><a href="#">Chesapeake Champs</a></p>
		<p>b. Identify and describe that different individuals or groups are affected by an issue in different ways.</p>	<p><a href="#">H2Oh No!</a></p> <p><a href="#">Chesapeake Champs</a></p>





8	<b>B. Environmental Issues</b>  1. Recognize and explain how human activities can accelerate or magnify many naturally occurring changes.	a. Identify and describe how natural processes, such as natural disasters, cyclic climate change, flooding, volcanic eruptions, drought, soil erosion, sedimentation in watersheds, natural selection, population cycles, extinction, forest fires, and deforestation change the environment.	<a href="#">The Bay's Muddy History</a> in Cinema Bayville  <a href="#">Chesapeake Champs</a>  <a href="#">H2Oh No!</a>
		b. Identify and describe how human activities produce changes in natural processes, such as climate change (acquisition, use, and distribution of energy resources), development (erosion, habitat destruction and fragmentation, and deforestation), extinction (habitat destruction and introduction of nonnative species), and cycling of matter (waste disposal practices).	<a href="#">H2Oh No!</a>  <a href="#">Chesapeake Past, Chesapeake Future—Parts 1, 2, 3, and 5</a> in Cinema Bayville  <a href="#">Chesapeake Champs</a>

### Language Arts

Grade	VSC topic and indicator	VSC objective	Interactive
<b>1.0 General Reading Processes</b>			
6-8	<b>D. Vocabulary</b>  1. Develop and apply vocabulary through exposure to a variety of texts	a. Acquire new vocabulary through listening to, independently reading, and discussing a variety of literary and informational texts	<a href="#">Here There Be Monsters</a>
6	<b>E. General Reading Comprehension</b>  1. Develop and apply comprehension skills through exposure to a variety of texts, including traditional print and electronic texts	a. Listen to critically, read, and discuss texts representing diversity in content, culture, authorship, and perspective, including areas, such as race, gender, disability, religion, and socio-economic background	<a href="#">Here There Be Monsters</a>
7	<b>E. General Reading Comprehension</b>	a. Listen to critically, read, and discuss texts representing diversity in content, culture, authorship, and perspective,	<a href="#">Here There Be Monsters</a>



	1. Apply comprehension skills through exposure to a variety of texts, including traditional print and electronic texts	including areas, such as race, gender, disability, religion, and socio-economic background	
8	<b>E. General Reading Comprehension</b>  1. Apply and refine comprehension skills through exposure to a variety of texts, including traditional print and electronic texts	a. Listen to critically, read, and discuss texts representing diversity in content, culture, authorship, and perspective, including areas, such as race, gender, disability, religion, and socio-economic background	<a href="#">Here There Be Monsters</a>
<b>2.0 Comprehension of Informational Text</b>			
6	<b>A. Comprehension of Informational Text</b> 1. Develop and apply comprehension skills by reading a variety of self-selected and assigned print and electronic informational texts	a. Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge	<a href="#">Here There Be Monsters</a>
	<b>A. Comprehension of Informational Text</b> 2. Identify and use text features to facilitate understanding of informational texts	e. Use online features	<a href="#">Here There Be Monsters</a>
7	<b>A. Comprehension of Informational Text</b> 1. Apply comprehension skills by selecting, reading, and interpreting a variety of print and electronic informational texts	a. Read, use, and identify the characteristics of primary and secondary sources of academic information	<a href="#">Here There Be Monsters</a>
	<b>A. Comprehension of Informational Text</b> 2. Identify and use text features to facilitate understanding of informational texts	e. Analyze online features that contribute to meaning	<a href="#">Here There Be Monsters</a>
8	<b>A. Comprehension of Informational Text</b> 1. Apply and refine comprehension skills by selecting, reading, and analyzing a variety of print and electronic informational texts	a. Read, use, and identify the characteristics of primary and secondary sources of academic information	<a href="#">Here There Be Monsters</a>
	<b>A. Comprehension of Informational Text</b>	e. Analyze online features that contribute to meaning	<a href="#">Here There Be Monsters</a>



2. Identify and use text features to facilitate understanding of informational texts		
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## Standards sorted by grade level

### Science

Standard	VSC topic and indicator	VSC objective	Interactive
<b>Grade 4</b>			
Earth/Space Science	<b>B. Earth History</b>  2. Recognize and explain that fossils provide evidence about the plants and animals that lived long ago and about the nature of the environment at that time.	a. Recognize and explain that the remains or imprints of plants or animals can become fossils.	<a href="#">Treasures of Calvert Cliffs</a> in Cinema Bayville
		c. Identify what an animal or plant fossil is able to tell about the environment in which it lived.	<a href="#">Treasures of Calvert Cliffs</a> in Cinema Bayville  <a href="#">The Bay's Muddy History</a> in Cinema Bayville
Life Science	<b>D. Evolution</b>  1. Explain that individuals of the same kind differ in their characteristics, and sometimes the differences give individuals an advantage in surviving and reproducing.	a. Describe ways in which organisms in one habitat differ from those in another habitat and consider how these differences help them survive and reproduce.	<a href="#">Bay Quest</a>
		b. Explain that the characteristics of an organism affect its ability to survive and reproduce.	<a href="#">Bay Quest</a>
Life Science	<b>F. Ecology</b>  1. Explain ways that individuals and groups of organisms interact with each other and their environment.	a. Identify and describe the interactions of organisms present in a habitat. <ul style="list-style-type: none"> <li>• Competition for space, food, and water</li> <li>• Beneficial interactions: nesting, pollination, seed dispersal</li> <li>• Roles within food chains and webs: scavengers, decomposers, etc.</li> </ul>	<a href="#">Bay Quest</a>  <a href="#">Meal Deal</a>
		b. Explain that changes in an organism's habitat are sometimes beneficial to it and sometimes harmful.	<a href="#">Meal Deal</a>  <a href="#">In Green Obscurity</a> in Cinema Bayville



Environmental Science	<b>B. Environmental Issues</b> 1. Recognize and describe that people depend on, change, and are affected by the environment.	a. Identify and describe that human activities in a community or region are affected by environmental factors, such as presence and quality of water, soil type, temperature, and precipitation.	<a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>
<b>Grade 5</b>			
Earth/Space Science	<b>A. Materials and Processes that Shape a Planet</b> 2. Cite and describe the processes that cause rapid or slow changes in Earth's surface.	a. Identify and describe events such as tornadoes, hurricanes, volcanic eruptions, earthquakes, and flooding which change surface features rapidly.	<a href="#">The Bay's Muddy History</a> (in Cinema Bayville)
Earth/Space Science	<b>E. Interactions of Hydrosphere and Atmosphere</b> 1. Recognize and describe that the amount of water on Earth continues to stay the same even though it may change from one form to another.	a. Describe how water on Earth changes. <ul style="list-style-type: none"> <li>• Condensation</li> <li>• Precipitation</li> <li>• Evaporation</li> </ul>	<a href="#">H2Oh No!</a>
		b. Explain that the sun is the main source of energy that causes the changes in the water on Earth.	<a href="#">H2Oh No!</a>
		c. Describe the relationship between the amount of energy from the sun and the quantity of water that is changed.	<a href="#">H2Oh No!</a>
		d. Describe the water cycle.	<a href="#">H2Oh No!</a>  <a href="#">Water Flows, Water Woes</a> in Cinema Bayville
Life Science	<b>A. Diversity of Life</b> 1. Explain the idea that in any particular environment, some kinds of plants and animals survive well, some less well, and some cannot survive at all.	a. Explain that the survival of individual organisms and entire populations can be affected by sudden (flood, Tsunami) or slow (global warming, air pollution) changes in the environment.	<a href="#">In Green Obscurity</a> (in Cinema Bayville)
		b. Based on observations of features and behaviors of animals and plants from very	<a href="#">Here There Be Monsters</a>



		different environments describe reasons that they might not survive if their environment changed or if they were moved from one environment to another.	
		e. State reasons why certain animals such as whales, salmon, could not survive in the Chesapeake Bay.	<a href="#">Here There Be Monsters</a>
Environmental Science	<b>A. Natural Resources and Human Needs</b>  1. Recognize and explain how renewable and nonrenewable natural resources are used by humans to meet basic needs.	A. Identify and compare renewable resources and nonrenewable resources.	<a href="#">Chesapeake Champs</a>
		B. Describe how humans use renewable natural resources. <ul style="list-style-type: none"> <li>Plants</li> <li>Soil</li> <li>Water</li> <li>Animals</li> </ul>	<a href="#">Chesapeake Champs</a>
		C. Describe how humans use nonrenewable natural resources. <ul style="list-style-type: none"> <li>Oil</li> <li>Coal</li> <li>Natural gas</li> <li>Minerals, including metals</li> </ul>	<a href="#">Chesapeake Champs</a>
Environmental Science	<b>B. Environmental issues</b>  1. Recognize and explain that decisions influencing the use of natural resources may have benefits, drawbacks, unexpected consequences, and tradeoffs.	a. Identify and describe personal and community behaviors that waste, natural resources and/or cause environmental harm and those behaviors that maintain or improve the environment.	<a href="#">Chesapeake Past, Chesapeake Future, 4</a> in Cinema Bayville  <a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>
		b. Identify and describe that individuals and groups assess and manage risk to the environment differently.	<a href="#">H2Oh No!</a>
Environmental Science	<b>B. Environmental Issues</b>  2. Recognize and describe that consequences may occur when Earth's natural re-	a. Explain how human activities, such as recycling centers, native plantings in schoolyard habitats, and good farming practices may have positive consequences on	<a href="#">Chesapeake Past, Chesapeake Future, 4</a> in Cinema Bayville



	sources are used.	the natural environment.	<a href="#">In Green Obscurity</a> (in Cinema Bayville)  <a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>
		b. Explain how human activities such as damage or destruction done to habitats; air, water, land and/or noise pollution, may have a negative consequence on the natural environment.	<a href="#">Chesapeake Past, Chesapeake Future, 4</a> in Cinema Bayville  <a href="#">In Green Obscurity</a> (in Cinema Bayville)  <a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>
		c. Identify and describe that an environmental issue affects different individuals and groups.	<a href="#">H2Oh No!</a>
<b>Grade 6</b>			
Skills and Processes	<b>A. Constructing Knowledge</b>  1. Design and carry out simple investigations and formulate appropriate conclusions based on data obtained.	b. Develop the ability to clarify questions and direct them toward objects and phenomena that can be described, explained, or predicted by scientific investigations.	<a href="#">Bay Lab</a> <a href="#">Here There Be Monsters</a>
		c. Explain and provide examples that hypotheses are valuable, even if they turn out not to be true, if they lead to fruitful investigations.	<a href="#">Here There Be Monsters</a>
		f. Give examples of when further studies of the question being investigated may be necessary.	<a href="#">Here There Be Monsters</a>
Skills and Processes	<b>B. Applying Evidence and Reasoning</b>  1. Review data from a simple experiment, summarize the data, and construct a logical argument about the cause-and-effect relationships in the experiment.	a. Make a case for accepting the idea that there is no fixed set of steps all scientists follow, scientific investigations usually involve the collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations to make sense of the collected	<a href="#">Bay Lab</a>





		evidence.	
		b. Explain that what people expect to observe often affects what they actually do observe and that scientists know about this danger to objectivity and take steps to try to avoid it when designing investigations and examining data.	<a href="#">Here There Be Monsters</a>
		c. Explain that even though different explanations are given for the same evidence, it is not always possible to tell which one is correct.	<a href="#">Bay Lab</a> <a href="#">Here There Be Monsters</a>
		e. Question claims based on vague statements or on statements made by people outside their area of expertise.	<a href="#">Here There Be Monsters</a>
Earth/Space Science	<b>A. Materials and Processes that Shape a Planet</b>  2. Cite evidence to demonstrate and explain that physical weathering and chemical weathering cause changes to Earth materials.	a. Identify examples of physical weathering, such as the effect of wind, ice, etc. and describe the changes caused in each.	<a href="#">The Bay's Muddy History</a> in Cinema Bayville
Life Science	<b>D. Evolution</b>  1. Explain that in any particular environment, the growth and survival of organisms and species depend on the physical conditions.	b. Explain that in all environments-freshwater, marine, forest, desert, grassland, mountain, and others-organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter.	<a href="#">Bay Quest</a>  <a href="#">Bay Lab</a>
		c. Explain that in any particular environment individual organisms with certain traits are more likely than others to survive and have offspring.	<a href="#">Bay Quest</a>
		e. Describe ways in which changes in environmental conditions can affect the survival of individual organisms and entire species.	<a href="#">Bay Lab</a>
Life Science	<b>F. Ecology</b>	a. Explain that populations increase or decrease relative to	<a href="#">Meal Deal</a>



	<p>1. Give reasons supporting the fact that the number of organisms an environment can support depends on the physical conditions and resources available.</p>	<p>the availability of resources and the conditions of the environment.</p>	<p><a href="#">Bay Lab</a></p> <p><a href="#">In Green Obscurity</a> (in Cinema Bayville)</p> <p><a href="#">Oyster S.O.S.</a> in Cinema Bayville</p> <p><a href="#">The Root of it All</a> in Cinema Bayville</p>
		<p>b. Identify and describe factors that could limit populations within any environment, such as disease, introduction of a nonnative species, depletion of resources, etc.</p>	<p><a href="#">Meal Deal</a></p> <p><a href="#">Bay Lab</a></p> <p><a href="#">In Green Obscurity</a> (in Cinema Bayville)</p> <p><a href="#">Oyster S.O.S.</a> in Cinema Bayville</p> <p><a href="#">The Root of it All</a> in Cinema Bayville</p>
		<p>c. Explain that within any environment organisms with similar needs may compete with one another for resources.</p>	<p><a href="#">Bay Quest</a></p> <p><a href="#">Meal Deal</a></p>
		<p>d. Cite examples to illustrate that competition is reduced when organisms use different sets of resources, such as birds in a forest eat different kinds and sizes of seeds.</p>	<p><a href="#">Bay Quest</a></p> <p><a href="#">Meal Deal</a></p>
<p>Environmental Science</p>	<p><b>A. Natural Resources and Human Needs</b></p> <p>1. Recognize and compare how different parts of the world have varying amounts and types of natural resources and how the use of those resources impacts environmental quality.</p>	<p>a. Identify and describe natural resources, such as agricultural lands, energy, minerals, water, wildlife, forests, and fisheries.</p>	<p><a href="#">H2Oh No!</a></p> <p><a href="#">Hope at the Edge 3</a> in Cinema Bayville</p> <p><a href="#">Legacy on Winter's Bay</a> in Cinema Bayville</p>
		<p>b. Identify and describe the distribution of natural resources around the Earth</p>	



		<p>c. Identify and describe how the natural change process may be affected by human activities, such as agriculture, beach preservation, mining, development/construction, and stream/river alteration.</p>	<p><a href="#">H2Oh No!</a></p> <p><a href="#">Hope at the Edge 3</a> in Cinema Bayville</p> <p><a href="#">Legacy on Winter's Bay</a> in Cinema Bayville</p> <p><a href="#">Chesapeake Champs</a></p> <p><a href="#">Bay Lab</a></p>
		<p>d. Identify and describe problems associated with obtaining, using, and distributing natural resources.</p>	<p><a href="#">H2Oh No!</a></p> <p><a href="#">Hope at the Edge 3</a> in Cinema Bayville</p> <p><a href="#">Legacy on Winter's Bay</a> in Cinema Bayville</p> <p><a href="#">Chesapeake Champs</a></p>
		<p>e. Identify possible solutions to problems associated with obtaining, using, and distributing natural resources.</p>	<p><a href="#">H2Oh No!</a></p> <p><a href="#">Oyster S.O.S.</a> in Cinema Bayville</p> <p><a href="#">Chesapeake Champs</a></p>
<p>Environmental Science</p>	<p><b>B. Environmental issues</b></p> <p>1. Recognize and explain that human-caused changes have consequences for the immediate environment as well as for other places and future times.</p>	<p>a. Identify and describe a range of local issues that have an impact on people in other places.</p>	<p><a href="#">H2Oh No!</a></p>
		<p>b. Recognize and describe how environmental change in one part of the world can have consequences for other parts of the world.</p>	<p><a href="#">Chesapeake Past, Chesapeake Future, 3</a> in Cinema Bayville</p> <p><a href="#">Chesapeake Champs</a></p>
		<p>c. Identify and describe that ecosystems can be impacted by human activities, such as resource acquisition and use, land use decisions (agriculture, mining, and development),</p>	<p><a href="#">Chesapeake Past, Chesapeake Future, 3</a> in Cinema Bayville</p> <p><a href="#">Chesapeake</a></p>



		recycling, and waste disposal.	<a href="#">Champs</a>
<b>Grade 7</b>			
Skills and Processes	<b>A. Constructing Knowledge</b>  1. Design and carry out simple investigations and formulate appropriate conclusions based on data obtained.	b. Develop the ability to clarify questions and direct them toward objects and phenomena that can be described, explained, or predicted by scientific investigations.	<a href="#">Bay Lab</a>
		c. Explain and provide examples that hypotheses are valuable, even if they turn out not to be true, if they lead to fruitful investigations.	<a href="#">Here There Be Monsters</a>
		f. Give examples of when further studies of the question being investigated may be necessary.	<a href="#">Here There Be Monsters</a>
Skills and Processes	<b>B. Applying Evidence and Reasoning</b>  1. Review data from a simple experiment, summarize the data, and construct a logical argument about the cause-and-effect relationships in the experiment.	a. Make a case for accepting the idea that there is no fixed set of steps all scientists follow, scientific investigations usually involve the collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations to make sense of the collected evidence.	<a href="#">Bay Lab</a>
		b. Explain that what people expect to observe often affects what they actually do observe and that scientists know about this danger to objectivity and take steps to try to avoid it when designing investigations and examining data.	<a href="#">Here There Be Monsters</a>
		c. Explain that even though different explanations are given for the same evidence, it is not always possible to tell which one is correct.	<a href="#">Bay Lab</a> <a href="#">Here There Be Monsters</a>
		e. Question claims based on vague statements or on statements made by people outside their area of expertise.	<a href="#">Here There Be Monsters</a>
Life Science	<b>E. Flow of Matter and Energy</b>  1. Compare how plants and animals meet the need to obtain and utilize food.	f. Provide evidence that supports the premise "In the flow of matter system the total amount of matter remains constant even though its form	<a href="#">H2Oh No!</a>



		and location change.” <ul style="list-style-type: none"> <li>• Water cycle</li> <li>• Nitrogen cycle</li> <li>• Matter cycle</li> </ul>	
Environmental Science	<b>A. Natural Resources and Human Needs</b>  1. Recognize and explain the impact of a changing human population on the use of natural resources and on environmental quality.	a. Identify and describe the positive and negative impacts of an increasing human population on the use of natural resources, such as land, fossil fuels, forests, water, wind, minerals, and wildlife.	<a href="#">Chesapeake Past, Chesapeake Future—Parts 1, 2, 3, and 5</a> in Cinema Bayville  <a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>  <a href="#">Bay Lab</a>
Environmental Science	<b>B. Environmental Issues</b>  1. Recognize and describe that environmental changes can have local, regional, and global consequences.	a. Identify and describe a local, regional, or global environmental issue.	<a href="#">Chesapeake Champs</a>
		b. Identify and describe that different individuals or groups are affected by an issue in different ways.	<a href="#">H2Oh No!</a>  <a href="#">Chesapeake Champs</a>
<b>Grade 8</b>			
Skills and Processes	<b>A. Constructing Knowledge</b>  1. Design and carry out simple investigations and formulate appropriate conclusions based on data obtained.	b. Develop the ability to clarify questions and direct them toward objects and phenomena that can be described, explained, or predicted by scientific investigations.	<a href="#">Bay Lab</a>
		c. Explain and provide examples that hypotheses are valuable, even if they turn out not to be true, if they lead to fruitful investigations.	<a href="#">Here There Be Monsters</a>
		f. Give examples of when further studies of the question being investigated may be necessary.	<a href="#">Here There Be Monsters</a>
Skills and Processes	<b>B. Applying Evidence and Reasoning</b>  1. Review data from a simple experiment, summarize the data, and construct a logical	a. Make a case for accepting the idea that there is no fixed set of steps all scientists follow, scientific investigations usually involve the collection of relevant evidence, the use of logical	<a href="#">Bay Lab</a>



	argument about the cause-and-effect relationships in the experiment.	reasoning, and the application of imagination in devising hypotheses and explanations to make sense of the collected evidence.	
		b. Explain that what people expect to observe often affects what they actually do observe and that scientists know about this danger to objectivity and take steps to try to avoid it when designing investigations and examining data.	<a href="#">Here There Be Monsters</a>
		c. Explain that even though different explanations are given for the same evidence, it is not always possible to tell which one is correct.	<a href="#">Bay Lab Here There Be Monsters</a>
		e. Question claims based on vague statements or on statements made by people outside their area of expertise.	<a href="#">Here There Be Monsters</a>
Earth/Space Science	<b>B. Earth History</b>  2. Recognize and explain that fossils found in layers of sedimentary rock provide evidence of changing life forms.	b. Recognize and explain that the fossil record of plants and animals describes changes over time.	<a href="#">Treasures of Calvert Cliffs</a> in Cinema Bayville
Earth/Space Science	<b>E. Interactions of Hydrosphere and Atmosphere</b>  1. Describe the properties and structure of the hydrosphere and atmosphere.	a. Recognize and describe the water cycle as the distribution and circulation of Earth's water through the glaciers, surface water, groundwater, oceans, and atmosphere.	<a href="#">H2Oh No!</a>  <a href="#">Water Flows, Water Woes</a> in Cinema Bayville
		b. Identify and compare the physical properties of fresh water and salt water.	<a href="#">H2Oh No!</a>
		c. Recognize and describe the function of the layers of Earth's atmosphere.	<a href="#">H2Oh No!</a>
Life Science	<b>D. Evolution</b>  1. Recognize and describe that evolutionary change in species over time occurs as a	a. Recognize and describe that gradual (climatic) and sudden (floods and fires) changes in environmental conditions affect the survival of organisms and	<a href="#">Bay Lab</a>





	result of natural variation in organisms and environmental changes.	populations.	
Environmental Science	<b>B. Environmental Issues</b>  1. Recognize and explain how human activities can accelerate or magnify many naturally occurring changes.	a. Identify and describe how natural processes, such as natural disasters, cyclic climate change, flooding, volcanic eruptions, drought, soil erosion, sedimentation in watersheds, natural selection, population cycles, extinction, forest fires, and deforestation change the environment.	<a href="#">The Bay's Muddy History</a> in Cinema Bayville  <a href="#">Chesapeake Champs</a>  <a href="#">H2Oh No!</a>
		b. Identify and describe how human activities produce changes in natural processes, such as climate change (acquisition, use, and distribution of energy resources), development (erosion, habitat destruction and fragmentation, and deforestation), extinction (habitat destruction and introduction of nonnative species), and cycling of matter (waste disposal practices).	<a href="#">H2Oh No!</a>  <a href="#">Chesapeake Past, Chesapeake Future—Parts 1, 2, 3, and 5</a> in Cinema Bayville  <a href="#">Chesapeake Champs</a>

**Language Arts** [to be added once *Here There Be Monsters* teacher guide is completed]

[Print this chart](#)

Standard	VSC topic and indicator	VSC objective	Interactive
<b>Grade 6</b>			
General Reading Processes	<b>D. Vocabulary</b>  1. Develop and apply vocabulary through exposure to a variety of texts	a. Acquire new vocabulary through listening to, independently reading, and discussing a variety of literary and informational texts	<a href="#">Here There Be Monsters</a>
General Reading Processes	<b>E. General Reading Comprehension</b>  1. Develop and apply comprehension skills through exposure to a variety of texts, including	a. Listen to critically, read, and discuss texts representing diversity in content, culture, authorship, and perspective, including areas, such as race, gender, disability, religion, and socio-economic background	<a href="#">Here There Be Monsters</a>



	traditional print and electronic texts		
Comprehension of Informational Text	<b>A. Comprehension of Informational Text</b> 1. Develop and apply comprehension skills by reading a variety of self-selected and assigned print and electronic informational texts	a. Read, use, and identify the characteristics of nonfiction materials to gain information and content knowledge	<a href="#">Here There Be Monsters</a>
	<b>A. Comprehension of Informational Text</b> 2. Identify and use text features to facilitate understanding of informational texts	e. Use online features	<a href="#">Here There Be Monsters</a>
<b>Grade 7</b>			
General Reading Processes	<b>D. Vocabulary</b> 1. Develop and apply vocabulary through exposure to a variety of texts	a. Acquire new vocabulary through listening to, independently reading, and discussing a variety of literary and informational texts	<a href="#">Here There Be Monsters</a>
General Reading Processes	<b>E. General Reading Comprehension</b> 1. Apply comprehension skills through exposure to a variety of texts, including traditional print and electronic texts	a. Listen to critically, read, and discuss texts representing diversity in content, culture, authorship, and perspective, including areas, such as race, gender, disability, religion, and socio-economic background	<a href="#">Here There Be Monsters</a>
Comprehension of Informational Text	<b>A. Comprehension of Informational Text</b> 1. Apply comprehension skills by selecting, reading, and interpreting a variety of print and electronic informational texts	a. Read, use, and identify the characteristics of primary and secondary sources of academic information	<a href="#">Here There Be Monsters</a>
	<b>A. Comprehension of Informational Text</b> 2. Identify and use text features to facilitate understanding of informational texts	e. Analyze online features that contribute to meaning	<a href="#">Here There Be Monsters</a>
<b>Grade 8</b>			
General Reading Processes	<b>D. Vocabulary</b>	a. Acquire new vocabulary through listening to,	<a href="#">Here There Be Monsters</a>



	1. Develop and apply vocabulary through exposure to a variety of texts	independently reading, and discussing a variety of literary and informational texts	
General Reading Processes	<b>E. General Reading Comprehension</b>  1. Apply and refine comprehension skills through exposure to a variety of texts, including traditional print and electronic texts	a. Listen to critically, read, and discuss texts representing diversity in content, culture, authorship, and perspective, including areas, such as race, gender, disability, religion, and socio-economic background	<a href="#">Here There Be Monsters</a>
Comprehension of Informational Text	<b>A. Comprehension of Informational Text</b> 1. Apply and refine comprehension skills by selecting, reading, and analyzing a variety of print and electronic informational texts	a. Read, use, and identify the characteristics of primary and secondary sources of academic information	<a href="#">Here There Be Monsters</a>
	<b>A. Comprehension of Informational Text</b>  2. Identify and use text features to facilitate understanding of informational texts	e. Analyze online features that contribute to meaning	<a href="#">Here There Be Monsters</a>