

# ENVIRONMENTAL LITERACY INFUSION IN SCIENCE & SOCIAL STUDIES CURRICULA

## Standard 1.0 Environmental Issues

The student will investigate and analyze environmental issues ranging from local to global perspectives and develop and implement a local action project that protects, sustains, or enhances the natural environment.

A. ENVIRONMENTAL ISSUE INVESTIGATION				
1. Identify an environmental issue.				
PK-2	3-5	6-8	9-12	Supporting Curriculum
<ul style="list-style-type: none"> <li>• <b>Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</b> SCI 1(PK-2)A1</li> <li>• <b>Recognize and describe that the activities of individuals or groups of individuals can affect the environment.</b> SCI 6(1)B1</li> <li>• <b>Recognize and explain how Earth's natural resources from the natural environment are used to meet human needs.</b> SCI 6(2)A1</li> <li>• Explain that some natural resources are limited and need to be used wisely. SCI 6(2)A1</li> <li>• <b>Recognize and explain how Earth's natural resources from the natural environment are used to meet human needs.</b> SCI 6(2)B1</li> <li>• Identify concerns in the community, such as safety issues and pollution problems and ways to resolve these concerns. SS 1(2)C.1.b</li> <li>• Describe how and why people protect or fail to protect the environment SS 3(2)D.1.b</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.</b> SCI 1(3-5)A1</li> <li>• <b>Recognize that materials continue to exist even though they change from one form to another.</b> SCI 3(3)E1</li> <li>• <b>Explain ways that individuals and groups of organisms interact with each other and their environment.</b> SCI 3(4)F1</li> <li>• <b>Recognize and describe that people in Maryland depend on, change, and are affected by the environment.</b> SCI 6(4)B1</li> <li>• <b>Recognize and explain how renewable and nonrenewable natural resources are used by humans in Maryland to meet basic needs.</b> SCI 6(5)A1</li> <li>• <b>Recognize and explain that decisions influencing the use of natural resources may have</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Identify and describe problems associated with obtaining, using, and distributing natural resources.</b> 6(6)A1</li> <li>• <b>Identify and describe a range of local issues that have an impact on people in other places.</b> 6(6)B1</li> <li>• <b>Identify and describe a local, regional, or global environmental issue</b> 6(7)A1 <b>Identify and describe how human activities produce changes in natural processes.</b> SCI 6(8)B1</li> <li>• Analyze why and how people in contemporary world regions modify their natural environment and the impact of those modifications SS 3(7)D.1</li> <li>• Analyze the decisions that people made because resources were limited relative to economic wants for goods and services in America SS 4(8)A.1</li> </ul>	<ul style="list-style-type: none"> <li>• The student will recognize that real problems have more than one solution and decisions to accept one solution over another are made on the basis of many issues. SCI CLG 1.1.1</li> <li>• The student will investigate a biological issue and be able to defend their position on topics such as animal rights, drug and alcohol abuse, viral diseases (e.g., AIDS), genetic engineering, bioethics, biodiversity, population growth, global sustainability, or origin of life. SCI CLG 3.6.2</li> <li>• Identify an environmental issue and formulate related research questions. SCI CLG 6.4.1</li> <li>• Analyze significant issues in domestic policy and how they reflect the national interest, values and principles, such as healthcare, high level of security awareness, environmental concerns SS 1(G)A.3.b Analyze contemporary concerns that affect international relationships and government policies, such as world health, human rights, nation-building, national security and weapons of mass destruction, outsourcing and</li> </ul>	<p><b>English Language Arts</b> RI(K-2)1-3 RI(K-2)7,8 RI(K-2) 10 RI(3-5)3 RI(3-5)7,8 RI(3-5) 10 RST.6-8.4,5,7,8,9,10 W.6-8.1,2,7,8,9 RST.9-12. 4,5,7,8,9,10 W.9-12 1,2,7,8,9,10</p> <p><b>Mathematics</b> SMP 1-8</p> <p><b>Health</b> 1(3)A1a 2(HS)A.1.a</p> <p><b>Career &amp; Technology Education</b> GTT(3.1)2-3 GTT(3.2)1 POE(1.2)1 POE(1.3)1-5 CEA(RD)1 CEA(CASC)4,6 BI(IEHP)P4.1-6 BI(IEHP)P5.1-3 MI(MI)3</p>

Science: PK-8: 6(5)B2a-c = Standard,(Grade),Topic, Indicator, Objectives  
CLG: 1.1.1 = Goal, Expectation, Indicator  
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Social Studies: 1(PK-2)A1a,b = Standard, (Grade), Topic, Indicator, Objectives  
Health: 3(5)D1a-c = Standard, (Grade), Topic, Indicator, Objectives  
English Language Arts: W.1.8 = Strand, Grade, Standard  
Fine Arts: PK-8: Standard, (Grade), Indicator, Objectives  
HS: Subject, Outcome, Expectation, Indicator

## ENVIRONMENTAL LITERACY INFUSION IN SCIENCE & SOCIAL STUDIES CURRICULA

<ul style="list-style-type: none"> <li>Explain that choices have consequences, some of which are more important than others SS 4(2)A.1.b</li> </ul>	<p><b>benefits, drawbacks, unexpected consequences, and tradeoffs.</b> SCI 6(5)B1</p> <ul style="list-style-type: none"> <li><b>Recognize and describe that consequences may occur when Earth's natural resources are used.</b> <b>SCI 6(5)B2</b></li> <li>Describe the responsibilities of being an effective citizen, such as cleaning up your neighborhood, being informed, obeying rules and laws, participating in class decisions, and volunteering SS 1(3)C.1.a</li> <li>Explain how the growth of communities and suburbs have had consequences on the environment, loss of farmland and pollution SS 3(4)D.1.c</li> <li>Identify the opportunity cost of a choice or decision SS 4(3)A.1.c</li> </ul>		<p>technology transfer SS 2(G)B.1.h</p> <ul style="list-style-type: none"> <li>The student will evaluate the role of government in addressing land use and other environmental issues SS 3(G)D.1</li> <li>Explain how scarcity and opportunity cost affect government decision-making SS 4(G)A.1.a</li> </ul>	
<p><b>Indicator 2. Develop and write research questions related to an environmental issue.</b></p>				
<p>PK-2</p>	<p>3-5</p>	<p>6-8</p>	<p>9-12</p>	<p>Supporting Curriculum</p>
<ul style="list-style-type: none"> <li><b>Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</b> SCI 1(PK-2)A1</li> <li>Ask Social Studies Questions 6(PK-2)C.</li> </ul>	<ul style="list-style-type: none"> <li><b>Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.</b> SCI 1(3-5)A1</li> <li><b>Identify a problem/situation that requires further study</b> 6(3-5)C.2</li> </ul>	<ul style="list-style-type: none"> <li>Develop the ability to clarify questions and direct them toward objects and phenomena that can be described, explained, or predicted by scientific investigations. SCI 1(6-8)A1b</li> <li>Ask Social Studies Questions SS 6(6-8)C.</li> <li>Research to Build and Present Knowledge Common Core (6-8)Writing/History and Social Studies</li> </ul>	<ul style="list-style-type: none"> <li>The student will identify meaningful, answerable scientific questions. SCI CLG 1.2.1</li> <li>The student will pose meaningful answerable scientific questions. SCI CLG 1.2.2</li> <li>Identify an environmental issue and formulate related research questions. SCI CLG 6.4.1</li> <li>Research to Build and Present Knowledge Common Core (9-10 and 11-12) Writing/History and Social Studies</li> </ul>	<p><b>English Language Arts</b> W(3-5)4 W(6-8)4 W(9-12)4</p> <p><b>Mathematics</b> SMP 1-8</p>

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Indicator 3. Given a specific issue, communicate the issue, the stakeholders involved and the stakeholders' beliefs and values.				
PK-2	3-5	6-8	9-12	Supporting Curriculum
<ul style="list-style-type: none"> <li>• People are more likely to believe your ideas if you can give good reasons for them. SCI 1(PK-2)B1</li> <li>• Describe things as accurately as possible and compare observations with those of others. SCI 1(PK-2)C1a</li> <li>• <b>Identify a situation or problem that requires study</b> SS 6(Pk-2)C.2</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.</b> SCI 1(3-5)C1a-e</li> <li>• <b>Identify and describe that an environmental issue affects individual people and groups of people differently.</b> SCI 6(5)B2c</li> <li>• <b>Identify a problem/situation that requires further study</b> SS 6(3-5)C.2</li> </ul>	<ul style="list-style-type: none"> <li>• Participate in group discussions on scientific topics by restating or summarizing accurately what others have said, asking for clarification or elaboration, and expressing alternative positions. SCI 1(6-8)C1f</li> <li>• <b>Identify a problem/situation that requires further study</b> SS 6(6-8)C.2</li> </ul>	<ul style="list-style-type: none"> <li>• The student will explain scientific concepts and processes through drawing, writing, and/or oral communication. SCI CLG 1.5.2</li> <li>• The student will evaluate roles and policies the government has assumed regarding public issues SS 1(G)A.3</li> <li>• Analyze geographic issues and problems using geographic concepts SS 3(G)A.1</li> <li>• Evaluate how the principles of economic costs, benefits, and opportunity cost are used to address public policy issues, such as environmental and healthcare concerns SS 4(G)A.1.e</li> </ul>	<p><b>English Language Arts</b> SL(K-2)1-6 SL(3-5)1-6 SL(6-8)1-6 SL(9-12)1-6</p> <p><b>Mathematics</b> SMP 1-8</p> <p><b>Fine Arts</b> 1(PK-2)2b, 3b 2(PK-2)4a,b 3(PK-2)1c 1(3-5)1b, 2b, 3b 2(3-5)4a-c 3(3-5)1c 3(3-5)2b 1(6-8)1b, 2b, 3b 2(8)2b 2(6-8)4a,b 3(6-8)2b 3(6-8)1c VA II B2, D2 VA III A1,2; B1,2 MU IIIA1-3, B1-3</p> <p><b>Health</b> 1(3)A1a 1(4)A1b 1(5)A1a 1(6)A1a,b 1(7)A1a,b 1(8)A1a-c 1(HS)A1a,b</p>
Indicator 4. Design and conduct the research.				
PK-2	3-5	6-8	9-12	Supporting Curriculum
<ul style="list-style-type: none"> <li>• Seek information through reading, observation, exploration,</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Gather and question data from many different forms of</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Design, analyze, or carry out simple investigations and</b></li> </ul>	<ul style="list-style-type: none"> <li>• The student will select appropriate instruments and</li> </ul>	<p><b>English Language Arts</b> W(K-2)7,8</p>

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<p>and investigations.</p> <ul style="list-style-type: none"> <li>Use tools such as thermometers, magnifiers, rulers, or balances to extend their senses and gather data.</li> <li>Participate in multiple experiences to verify that science investigations generally work the same way in different places. SCI 1(PK-2)A1b,c,e</li> <li>Acquire Social Studies Information SS 6(Pk-2)D</li> <li>Organize Social Studies Information SS 6(Pk-2)E</li> </ul>	<p><b>scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.</b></p> <p>SCI 1(3-5)A1</p> <ul style="list-style-type: none"> <li>Acquire Social Studies Information SS 6(3-5)D</li> <li>Organize Social Studies Information SS 6(3-5)E</li> </ul>	<p><b>formulate appropriate conclusions based on data obtained or provided.</b></p> <p>SCI 1(6-8)A1</p> <ul style="list-style-type: none"> <li>Acquire Social Studies Information SS 6(6-8)D</li> <li>Organize Social Studies Information SS 6(6-8)E</li> <li>Research to Build and Present Knowledge. Common Core (6-8) Writing/History and Social Studies</li> </ul>	<p>materials to conduct an investigation. SCI CLG 1.2.5</p> <ul style="list-style-type: none"> <li>The student will identify appropriate methods for conducting an investigation (independent and dependent variables, proper controls, repeat trials, appropriate sample size, etc.). SCI CLG 1.2.6</li> <li>The student will develop and demonstrate skills in using lab and field equipment to perform investigative techniques. SCI CLG 1.3.1</li> <li>The student will analyze the consequences and/or trade-offs between technological changes and their effect on the individual, society, and the environment. They may select topics such as bioethics, genetic engineering, endangered species, or food supply. SCI CLG 3.6.1</li> <li>The student will investigate a biological issue and be able to defend their position on topics such as animal rights, drug and alcohol abuse, viral diseases (e.g., AIDS), genetic engineering, bioethics, biodiversity, population growth, global sustainability, or origin of life. SCI CLG 3.6.2</li> <li>Design and conduct the research. SCI CLG 6.4.2</li> <li>Research to Build and Present Knowledge. Common Core 9-10 and 11-12)Writing/History and Social Studies</li> </ul>	<p>W(3-5)7,8 W(6-8)7,8 WHST(6-8)7-9 W(9-10)7,8 W(11-12)7,8 WHST(9-10) 7-9 WHST(11-12) 7-9</p> <p><b>Mathematics</b></p> <p>SMP 1-8 K.MD1-3 1.MD2-4 2.MD1-4,7,9,10 SMP 1-8 3.MD1-4 4.MD1-4 5.MD1-5 5.G1,2 SMP 1-8 6.RP3 6.SP1-5 7.G1,6 8.EE5 SMP1-8 N-Q1-3</p> <p><b>Career &amp; Technology Education</b></p> <p>CEA(RD)1 CEA(CASC)4,6 BI(IEHP)P4.1-6 BI(IEHP)P5.1-3</p>
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Indicator 5. Use data and references to interpret findings to form conclusions.				
PK-2	3-5	6-8	9-12	Supporting Curriculum
<ul style="list-style-type: none"> <li>Seek information through reading, observation, exploration, and investigations. SCI 1(P2)A1b</li> <li>Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others' ideas. SCI 1(P2)B1b</li> <li>Have opportunities to work with a team, share findings with others, and recognize that all team members should reach their own conclusions about what the findings mean. SCI 1(P2)C1d</li> <li>Analyze Social Studies Information SS 6(Pk-2)F</li> <li>Answer Social Studies Questions SS 6(Pk-2)G</li> </ul>	<ul style="list-style-type: none"> <li>Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations. SCI 1(3-5)B1a</li> <li>Offer reasons for their findings and consider reasons suggested by others. SCI 1(3-5)B1b</li> <li>Review different explanations for the same set of observations and make more observations to resolve the differences. SCI 1(3)B1a,b,c</li> <li>Make use of and analyze models, such as tables and graphs to summarize and interpret data. SCI 1(3-5)C1a</li> <li>Analyze Social Studies Information 6(3-5)F</li> <li>Answer Social Studies Questions SS 6(3-5)G</li> </ul>	<ul style="list-style-type: none"> <li>Interpret tables and graphs produced by others and describe in words the relationships they show. SCI 1(6-8)C1b</li> <li>Analyze Social Studies Information SS6(6-8)F</li> <li>Answer Social Studies Questions SS 6(6-8)G</li> <li>Integration of Knowledge and Ideas. Common Core (6-8) Reading/History and Social Studies</li> </ul>	<ul style="list-style-type: none"> <li>The student will recognize data that are biased. SCI CLG 1.1.4</li> <li>The student will explain factors that produce biased data (incomplete data, using data inappropriately, conflicts of interest, etc.). SCI CLG 1.1.5</li> <li>The student will defend the need for verifiable data. SCI CLG 1.2.8</li> <li>The student will organize data appropriately using techniques such as tables, graphs, and webs. (for graphs: axes labeled with appropriate quantities, appropriate units on axes, axes labeled with appropriate intervals, independent and dependent variables on correct axes, appropriate title) SCI CLG 1.4.1</li> <li>The student will analyze data to make predictions, decisions, or draw conclusions. SCI CLG 1.4.2</li> <li>The student will identify and evaluate the impact of scientific ideas and/or advancements in technology on society. SCI CLG1.7.2</li> <li>The student will analyze the consequences and/or trade-offs between technological changes and their effect on the individual, society, and the environment. They may select topics such as bioethics, genetic engineering, endangered species, or food</li> </ul>	<p><b>English Language Arts</b>                      W(K-2)7,8                      W(3-5)7,8                      W(6-8)7,8                      WHST(6-8)7-9                      W(9-10)7,8                      W(11-12)7,8                      WHST(9-10) 7-9                      WHST(11-12) 7-9                      RST.6-8.4,5,7,8,9,10                      W.6-8.1,2,7,8,9                      RST.9-12. 4,5,7,8,9,10                      W.9-12 1,2,7,8,9,10</p> <p><b>Mathematics</b>                      SMP 1-8                      KMD1-3                      IMD4                      2MD9,10                      3.OA8,9                      4.MD3,4                      5.OA3                      5.MD1,2                      6.SP4,5                      7.RP1-3                      7.G6                      7.SP1-4                      8.F4,5                      8.SP1-4                      N-Q1-3                      A-SSE1                      A-CED1                      F-IF4-6                      S-ID1-9                      S-IC1-6</p> <p><b>Career &amp; Technology Education</b>                      CEA(RD)1                      CEA(CASC)4,6                      BI(IEHP)P4.1-6</p>

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ENVIRONMENTAL LITERACY INFUSION IN SCIENCE & SOCIAL STUDIES CURRICULA

			supply. SCI CLG 3.6.1 <ul style="list-style-type: none"> <li>Interpret the findings to draw conclusions and make recommendations to help resolve the issue. SCI CLG 6.4.3</li> <li>Compare climate, land use, natural resources, population distribution, demographic and density maps of Maryland and the United States SS 3(G)A.1.a</li> <li>Integration of Knowledge and Ideas. Common Core (9-10 and 11-12) Reading/History and Social Studies</li> </ul>	BI(IEHP)P5.1-3
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**Topic B: ACTION COMPONENT**

**Indicator 1. Use recommendation(s) to develop and implement an environmental action plan.**

PK-2	3-5	6-8	9-12	Supporting Curriculum
<ul style="list-style-type: none"> <li>Recognize and describe that individual and group actions, such as recycling help the environment</li> <li>Recognize and describe that individual and group actions, such as littering harm the environment. SCI 6(1,2)B1a,b</li> <li>Plan and engage in school and community events, such as a mock election, playground clean-up, writing letters to community officials, and fund-raising for a cause SS 6(Pk-2)G.1.b</li> <li>Identify concerns in the community, such as safety issues and pollution problems and ways to resolve these concerns SS 1(2)C.1.b</li> </ul>	<ul style="list-style-type: none"> <li>Explain how human activities may have positive consequences on the natural environment. SCI 6(5)B2a</li> <li>Engage in civic participation and public discourse SS 6(3-5)G.1.b</li> <li>Propose and justify solutions to social studies problems SS 6(3-5)G.3.d</li> </ul>	<ul style="list-style-type: none"> <li>Identify and describe that ecosystems can be impacted by human activities. SCI 6(6)B1c</li> <li>Identify and describe how human activities produce changes in natural processes. SCI 6(8)B1b</li> <li>Engage in civic participation and public discourse SCI 6(6-8)G.1.b</li> <li>Propose and justify solutions to social studies problems SCI 6(6-8)G.3.d</li> <li>Text Types and Purposes. Common Core (6-8) Writing/History and Social Studies</li> </ul>	<ul style="list-style-type: none"> <li>The student will apply the skills, processes and concepts of biology, chemistry, physics, or earth science to societal issues. SCI CLG1.7.1</li> <li>The student will analyze the consequences and/or trade-offs between technological changes and their effect on the individual, society, and the environment. They may select topics such as bioethics, genetic engineering, endangered species, or food supply. SCI CLG 3.6.1</li> <li>Apply the conclusions to develop and implement an action project. SCI CLG 6.4.4</li> <li>Text Types and Purposes. Common Core (9-10 and 11-12) Writing/History and Social Studies</li> </ul>	<p><b>English Language Arts</b>                      W(K-2)7,8                      W(3-5)7,8                      W(6-8)7,8                      WHST(6-8)7-9                      RST.6-8.4,5,7,8,9,10                      W.6-8.1,2,7,8,9                      W(9-10)7,8                      W(11-12)7,8                      WHST(9-10) 7-9                      WHST(11-12) 7-9</p> <p><b>Mathematics</b>                      SMP 1-8                      1MD4                      2MD9,10                      SMP1-8                      3.OA8,9                      3MD3,4                      4.OA5                      4.MD4                      5.OA3</p>

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				<p>5.MD2          6.SP4,5          7.RP1-3          7.G6          7.SP1-4          8.F1-5          8.SP4,5          N-Q1-3          A-SSE1          A-CED1          F-IF4-6          S-ID1-9          S-IC1-6          G-MG1-3</p> <p><b>Career &amp; Technology Education</b>          CEA(RD)1          CEA(CASC)4,6          BI(IEHP)P4.1-6          BI(IEHP)P5.1-3</p>
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ENVIRONMENTAL LITERACY INFUSION IN SCIENCE & SOCIAL STUDIES CURRICULA

Indicator 2. Communicate, evaluate and justify personal views on environmental issues and alternate ways to address them.				
PK-2	3-5	6-8	9-12	Supporting Curriculum
<ul style="list-style-type: none"> <li>Ask "How do you know?" in appropriate situations and attempt reasonable answers when others ask them the same question. SCI 1(PK-2)C1a-e Plan and engage in school or community events, such as a mock election, playground clean-up, writing letters to community officials, and fund-raising for a cause SS 6(Pk-2)G.1.b</li> </ul>	<ul style="list-style-type: none"> <li>Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world. SCI 1(3)C1a-e</li> <li>Identify and describe that human activities in a community or region are affected by environmental factors. SCI 6(4)B1a</li> <li>Identify and describe a range of local issues that have an impact on people in other places.</li> <li>Recognize and describe how environmental change in one part of the world can have consequences for other parts of the world. SCI 6(5)B1a,b</li> <li>Recognize and describe that consequences may occur when Earth's natural resources are used. SCI 6(5)B2a-c</li> <li>Investigate the causes of contemporary conflict and compromises 2(4)C.1.b</li> <li>Engage in civic participation and public discourse 6(3-5)G.1.b</li> <li>Propose and justify solutions to social studies problems 6(3-5)G.3.d</li> </ul>	<ul style="list-style-type: none"> <li>Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world. SCI 1(6)C1</li> <li>Recognize and explain that human-caused changes have consequences for Maryland's environment as well as for other places and future times. SCI 6(6)B1</li> <li>Recognize and explain how human activities can accelerate or magnify many naturally occurring changes. SCI 6(8)B1</li> <li>Use effective speaking techniques to deliver narrative, persuasive, and research presentations SS 6(6-8)G.1.c</li> <li>Propose and justify solutions to social studies problems SS 6(3-5)G.3.d</li> <li>Text Types and Purposes. Common Core (6-8) Writing/History and Social Studies</li> </ul>	<ul style="list-style-type: none"> <li>The student will recognize that real problems have more than one solution and decisions to accept one solution over another are made on the basis of many issues. SCI CLG 1.1.1</li> <li>The student will communicate conclusions derived through a synthesis of ideas. SCI CLG 1.5.9</li> <li>The student will investigate a biological issue and be able to defend their position on topics such as animal rights, drug and alcohol abuse, viral diseases (e.g., AIDS), genetic engineering, bioethics, biodiversity, population growth, global sustainability, or origin of life. SCI CLG 3.6.2</li> <li>Analyze the effectiveness of the action project in terms of achieving the desired outcomes. SCI CLG 6.4.5</li> <li>Text Types and Purposes. Common Core (9-10 and 11-12) Writing/History and Social Studies</li> </ul>	<p><b>English Language Arts</b> SL(K-2)1-6 SL(3-5)1-6 SL(6-8)1-6 SL(9-12)1-6 W.6-8.1,2,7,8,9 W.9-12 1,2,7,8,9,10</p> <p><b>Mathematics</b> SMP 1-8</p> <p><b>Health</b> 1(3)A1a 1(4)A1b 1(5)A1a 1(6)A1a,b 1(7)A1a,b 1(8)A1a-c 1(HS)A1b</p> <p><b>Fine Arts</b> 2(8)2b 2(8)4b 3(8)1c 3(8)2a,b</p>

ENVIRONMENTAL LITERACY INFUSION IN SCIENCE & SOCIAL STUDIES CURRICULA

Indicator 3. Analyze the effectiveness of the action plan in terms of achieving the desired outcomes.				
PK-2	3-5	6-8	9-12	Supporting Curriculum
<ul style="list-style-type: none"> <li>Recognize and describe that the activities of individuals or groups of individuals can affect the environment. SCI 6(2)B1a,b</li> <li>Analyze Social Studies Information SS 6(Pk-2)F</li> </ul>	<ul style="list-style-type: none"> <li>Recognize and describe that people in Maryland depend on, change, and are affected by the environment. SCI 6(4)B1a</li> <li>Recognize and explain that decisions influencing the use of natural resources may have benefits, drawbacks, unexpected consequences, and tradeoffs. SCI 6(5)B</li> <li>Recognize and describe that consequences may occur when Earth's natural resources are used. SCI 6(5)B</li> <li>Analyze Social Studies Information SS 6(3-5)F</li> </ul>	<ul style="list-style-type: none"> <li>Recognize and explain that human-caused changes have consequences for Maryland's environment as well as for other places and future times. SCI 6(6)B1</li> <li>Recognize and describe that environmental changes can have local, regional, and global consequences. SCI 6(7)B1</li> <li>Identify and describe how human activities produce changes in natural processes. SCI 6(8)B1b</li> <li>Analyze Social Studies Information SS 6(6-8)F</li> </ul>	<ul style="list-style-type: none"> <li>The student will recognize that real problems have more than one solution and decisions to accept one solution over another are made on the basis of many issues. SCI CLG 1.1.1</li> <li>The student will apply the skills, processes and concepts of biology, chemistry, physics, or earth science to societal issues. SCI CLG 1.7.1</li> <li>Analyze the effectiveness of the action project in terms of achieving the desired outcomes. SCI CLG 6.4.5</li> <li>The student will evaluate roles and policies the government has assumed regarding public issues SS 1(G)A.3</li> </ul>	<p><b>English Language Arts</b> W(K-2)8 W(4-5)9 W(6-8)9 W(9-10)9 W(11-12)9</p> <p><b>Mathematics</b> SMP 1-8</p> <p><b>Career &amp; Technology Education</b> BI(IEHP)P4.1-6 BI(IEHP)P5.1-3</p>

# ENVIRONMENTAL LITERACY INFUSION IN SCIENCE & SOCIAL STUDIES CURRICULA

## KEYS

### English Language Arts

RST: Reading, Science & Technical Subjects

W: Writing

WHST: Writing in History, Science, & Technical Subjects

### CTE

GTT: Gateway To Technology, the middle school program

POE: Principles of Engineering, a foundation course in the high school engineering program

CEA: Civil Engineering and Architecture, a specialty course in the high school engineering program

MI: Medical Interventions, the third course in the biomedical sciences program

BI: Biomedical Innovation, the fourth and capstone course in the biomedical sciences program

Science: PK-8: 6(5)B2a-c = Standard,(Grade),Topic, Indicator, Objectives

CLG: 1.1.1 = Goal, Expectation, Indicator

Math: SMP3 = Standards for Mathematical Practice, Standard

3.NBT = Grade, Content Domain, Standard

CTE: GTT(3.1)2-3 = Course Lesson Concepts

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Social Studies: 1(PK-2)A1a,b = Standard, (Grade), Topic, Indicator, Objectives

Health: 3(5)D1a-c = Standard, (Grade), Topic, Indicator, Objectives

English Language Arts: W.1.8 = Strand, Grade, Standard

Fine Arts: PK-8: Standard, (Grade), Indicator, Objectives

HS: Subject, Outcome, Expectation, Indicator

## ENVIRONMENTAL LITERACY INFUSION IN SCIENCE & SOCIAL STUDIES CURRICULA

### Mathematics

#### Standards for Mathematical Practices

- 1: Make sense of problems and persevere in solving them.
- 2: Reason abstractly and quantitatively.
- 3: Construct viable arguments and critique the reasoning of others.
- 4: Model with mathematics.
- 5: Use appropriate tools strategically.
- 6: Attend to precision.
- 7: Look for and make use of structure.
- 8: Look for and express regularity in repeated reasoning.

#### Content Standards

- OA: Operations and Algebraic Thinking (K-5)  
NBT: Number and Operations in Base Ten (PK-5)  
MD: Measurement and Data (PK-5)  
G: Geometry (PK-8)  
CC: Counting and Cardinality (PK-K)  
NF: Number and Operations-Fractions (3-5)  
RP: Ratio and Proportional Relationships (6-7)  
NS: The Number System (6-8)  
EE: Expressions and Equations (6-8)  
SP: Statistics and Probability (6-8)  
F: Functions (8)

#### High School

- N-RN: The Real Number System  
N-Q: Quantities  
N-CN: The Complex Number System  
N-VM: Vector and Matrix Quantities  
A-SSE: Seeing Structure in Expressions  
A-APR: Arithmetic with Polynomials and Rational Expressions  
A-CED: Creating Equations  
A-REI: Reasoning with Equations and Inequalities  
F-IF: Interpreting Functions  
F-BF: Building Functions  
F-LE: Linear, Quadratic and Exponential Models  
F-TF: Trigonometric Functions  
G-MG: Modeling with Geometry  
S-ID: Interpreting Categorical and Quantitative Data  
S-IC: Making Inferences and Justifying Conclusions

Science: PK-8: 6(5)B2a-c = Standard,(Grade),Topic, Indicator, Objectives  
CLG: 1.1.1 = Goal, Expectation, Indicator  
Math: SMP3 = Standards for Mathematical Practice, Standard  
3.NBT = Grade, Content Domain, Standard  
CTE: GTT(3.1)2-3 = Course Lesson Concepts

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Social Studies: 1(PK-2)A1a,b = Standard, (Grade), Topic, Indicator, Objectives  
Health: 3(5)D1a-c = Standard, (Grade), Topic, Indicator, Objectives  
English Language Arts: W.1.8 = Strand, Grade, Standard  
Fine Arts: PK-8: Standard, (Grade), Indicator, Objectives  
HS: Subject, Outcome, Expectation, Indicator