

Teacher/Grade: K.Langdon 4		Topic: Water Quality and Impact on People/Environment	Month/Time span: Nov.-Dec
EIC Curriculum Map			
<u><i>Pennsylvania Academic Standards:</i></u>			
<u>Environment & Ecology</u> <ul style="list-style-type: none"> 4.1.4A,B,C 4.3.5C 4.8.4C 4.9.4A 		<u>Reading, Writing, Speaking & Listening</u> <ul style="list-style-type: none"> 1.1.5A,B,D,H 1.4.5B 1.6.5A 	
<u>Science & Technology</u> <ul style="list-style-type: none"> 3.5.4D 3.3.4A 3.7.4 C,D,E 		<u>Math</u> <ul style="list-style-type: none"> 2.6.5(A) 	
<u>Civics & Government</u> <ul style="list-style-type: none"> 6.3.6A 6.3.6B 	<u>Geography</u> <ul style="list-style-type: none"> 7.4.6A 7.4.6B 	<u>Arts and Humanities</u> <ul style="list-style-type: none"> 9.1.5A,B,C,D 	
<u>History</u> <ul style="list-style-type: none"> NA 	<u>Career Education and Work</u> <ul style="list-style-type: none"> N/A 	<u>Economics</u> <ul style="list-style-type: none"> N/A 	
<u>Health Safety and Physical Education</u> <ul style="list-style-type: none"> N/A 	<u>Family and Consumer Science</u> <ul style="list-style-type: none"> N/A 	<u>World Languages</u> <ul style="list-style-type: none"> N/A 	
<i>Goals and Objectives:</i>			
4.1.4(A,B,C) Explore physical properties of water cycle 4.8.4(C) Explain how human activities impact/change the environment. 4.9.4(A) Know that there are laws and regulations for the environment 3.5.4(D) Recognize the earth’s water resources. 6.3.6(A) Explain how scarcity influences choices and behaviors. 6.3.6(B) Explain how limited resources cause scarcity. 7.4.6(A) Describe the impact of physical systems on people. 7.4.6(B) Describe the impact of people on physical systems. 1.4.5(B) Write informational piece. 1.6.5(A) Present orally to an audience 2.6.5(A) Organize and display data using graphs.			
<i>Overview of Integrated Activities:</i>			
<ul style="list-style-type: none"> Create a KWL chart based on water quality and introduce 4 main types of pollution. Perform water quality tests at Smith’s Run (DO, nitrates, phosphates, pH, temperature, and turbidity) Collaboratively brainstorm and record various uses and overuses of water in a community. Using Enviro-scape as a visual, identify and record different types of pollution. Work in groups to create their own community based on “Dream-A-Stream” highlighting things necessary in a human habitat. In lab groups, discuss water uses in order to complete “Fred the Fish”, and “Farmer Brown” water quality lab. Read stream laws and regulation from Pennsylvania. Discuss the definition of a Bill of Rights for the United States. Collaboratively complete ‘Deadly Waters’” handout. 		<ul style="list-style-type: none"> In groups, read and understand every step of water filtering, and the water filter process. As a whole, analyze various water quality tests results. Brainstorm the importance of clean water and why it is necessary for a state to maintain strict water regulations. Technology activity: Create water quality safety flyer for SCEE using computer Entries for the Clean Water Contest sponsored by the Philadelphia Water Department and Partnership for the Delaware Estuary. 	
<i>Assessment</i>			
<ul style="list-style-type: none"> 4.1.4(A,B,C) Perform tests on Smith’s Run and record 		<ul style="list-style-type: none"> 4.1.4(A,B,C) Create a drinking water filter. 	

Teacher/Grade: K.Langdon 4	Topic: Water Quality and Impact on People/Environment	Month/Time span: Nov.-Dec
EIC Curriculum Map		

<p>observations in Water Quality Manual.</p> <ul style="list-style-type: none"> • 1.4.5(B) Maintain Nature Journal on various topics. • 4.8.4(C) Create a diagram of a community located by a stream. • 3.5.4(D), 6.3.6(B),7.4.6(B),4.8.4(C) Write an individual “Water Bill of Rights” based on regulations and discussion of water. • 4.8.4(C), 3.5.4(D) Graph water pollution based on “Deadly Waters” • 4.1.4(A,B,C), 2.6.5(A) Analyze and graph samples of water pollution test results. 	<ul style="list-style-type: none"> • 1.4.5(B) Write a persuasive essay to a state representative highlighting the need for strict water regulations.
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------

<i>Resources</i>

<p>Eco-Van Workbook</p> <p>Project Wet- Migration Headache</p> <p>Water Quality Manual/ Teacher’s Guide</p> <p>La Motte Green Water Monitoring Kit</p> <p><i>History Alive!</i></p>	
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--