

## ESL Curriculum Exemplar

Aligned to the 2007 WIDA Standards

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21<sup>ST</sup> CENTURY GLOBAL SKILLS

Grade Level Cluster – 6-8      Unit Overview	
<b>Content Area:</b> English as a Second Language	
<b>Unit Title:</b> Water Is Life	<b>Program Design:</b> Proficiency based class in 90 minute block.
<b>Target Proficiency Level:</b> Level 1 Entering and Level 2 Beginning <a href="http://www.wida.us/standards/perfdefs.pdf">http://www.wida.us/standards/perfdefs.pdf</a>	
<p><b>Unit Summary:</b> This unit is designed to emphasize the importance of water locally and globally to sustaining life. Through a series of scaffolded learning activities, students will strengthen their listening, speaking, reading and writing skills. As they do, students will be able to discuss how water becomes polluted and communicate the steps that can be taken to protect this natural resource. Students will learn how technology, innovation and international cooperation can be used to counter these problems.</p> <p><b>Interdisciplinary Connections:</b> Language Arts, Science, and Social Studies</p> <p><b>21<sup>st</sup> Century Themes:</b> Global Awareness and Health Literacy</p>	
<p><b>Unit Rationale:</b> Water is necessary to sustaining life on the planet; however, as natural resources diminish, more and more people are without ready access to potable water. By exploring solutions, students will have the opportunities to listen, speak, read and write about this challenge. Students will learn how innovation and international cooperation can confront these problems.</p>	
Learning Targets	
WIDA	English Language Proficiency (ELP) Standards
ELP Standard 1	English language learners communicate for <b>Social and Instructional</b> purposes within the school setting.
ELP Standard 2	English language learners communicate for information, ideas, and concepts necessary for academic success in the content area of <b>Language Arts</b>
ELP Standard 4	English language learners communicate for information, ideas, and concepts necessary for academic success in the content area of <b>Science</b>
ELP Standard 5	English language learners communicate for information, ideas, and concepts necessary for academic success in the content area of <b>Social Studies</b>
Language Domains	Each standard encompasses four language domains that define how ELLs process and use language: listening, speaking, reading, writing
<b>2010 Common Core Standards</b>	<b>English Language Arts</b> <b>Reading Standards in Literacy for Science and Technical Subjects</b>
Integration of knowledge and ideas 6-8.7	Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
<b>2009 NJCCCS</b>	<b>Science</b>
Life Science Standard 5.3	All students will understand that life science principles are powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accordance with rules that govern the physical world, and the order of natural systems can be modeled and predicted through the use of mathematics.
Strand C	<b>Interdependence:</b> All animals and most plants depend on both other organisms and their environment to meet their basic needs.

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### Related Cultural Content Statements

- The importance of water in the regions where students once lived will be examined.
- Access to water varies across cultures and profoundly influences the quality of life.
- Lack of access to water is a symptom of extreme poverty and global inequality.
- Access to water affects other areas of life such as hunger, education, gender discrimination.
- Online newspapers, magazines, blogs, wikis, podcasts, online videos, and government sites provide current information on perspectives of the target cultures on local, national and global problems/issues.

### Unit Essential Question

What language do students need in order to demonstrate comprehension and engage in the topic of “water is life?”

### Unit Enduring Understandings

Listening, speaking, reading and writing about “water is life” require specific academic language.

Lack of access to potable water is related to extreme poverty and global inequality.

Science and technology can be used to confront problems related to extreme poverty and diminishing natural resources.

### Evidence of Learning

#### Summative Assessment:

Student will create a presentation of target inventions used to counter water scarcity problems. Project will involve an oral presentation, as well as visual /print support created by students which may include pamphlets, posters, or Power Point presentation according to ability and proficiency level.

**Equipment needed:** Student computers (with multi-media production tools such as Photo Story or Power Point, headphones, and microphones), art supplies

**Teacher Resources:** Teacher produced texts on target inventions, activity sheets, guided questions, visual organizers, supplementary texts, journals.

#### Unit Learning Targets:

Students will summarize and draw conclusions about how a machine or tool is used or created to address the lack of access to water and how it affects other areas of life.

### Lesson Plans

Lesson	Timeframe
Lesson 1 What is Water pollution?	2 days
Lesson 2 Water, water everywhere and not a drop to drink!	4 days

**Teacher Note:** These lessons build upon previously learned vocabulary and grammatical structures. These lessons would occur after students have learned about the water cycle and have developed an understanding of the foundational vocabulary.

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### Curriculum Development Resources:

WIDA standards [www.wida.us](http://www.wida.us)

NJCCCS and Common Core Standards <https://www13.state.nj.us/NJCCCS/>

UN Millennium Goals as an organizing tool for approaching global education issues

[www.un.org/millenniumgoals/](http://www.un.org/millenniumgoals/)

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Water is Life Lesson Plan #1							
<b>Content Area:</b> English as a Second Language							
<b>Lesson Title:</b> What is water pollution?			<b>Timeframe:</b> 2 days; 90 minute block				
Lesson Components							
<u>21<sup>st</sup> Century Themes</u>							
X	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy	X	Health Literacy
<u>21<sup>st</sup> Century Skills</u>							
	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication	X	Collaboration
<b>Interdisciplinary Connections:</b> Language Arts, and Science							
<b>Integration of Technology:</b> WebQuest, blog, Internet							
<b>Equipment needed:</b> Computer and LCD projector, student computers, Internet							

Goals/Objectives	Learning Activities/Instructional Strategies	Assessment Tasks
<p>Students: <i>Speaking &amp; Writing</i></p> <ul style="list-style-type: none"> <li>Answer teacher questions about types of pollution in oral and written form.</li> <li>Match key vocabulary words related to the topics of water pollution.</li> <li>Sort and classify types of pollutions with words and captions.</li> <li>Make cause and effect connections related to the types of pollutions that can happen in the rivers, oceans, or streams using a graphic organizer.</li> <li>Describe and discuss some ways to reduce</li> </ul>	<p><b>Key vocabulary:</b> pollute/pollution/pollutants, evidence, chemicals, pesticides, preserve, purify, liquid, harm</p> <p><b>Key language structures:</b> <i>Pollution is a problem because _____. Some forms of pollution are _____.</i></p> <p><b>Warm-up:</b> Students: Respond to questions aloud or in writing with a partner- Think about all the things you enjoy doing outside. (The instructor should use visuals for support).</p> <p><b>Lesson Sequence:</b></p> <ol style="list-style-type: none"> <li>1. Teacher: Introduce pictures of lakes, rivers, streams, and various types of pollutants.</li> <li>2. Students: Orally identify the key vocabulary and how to affixes and root words to generate word families.</li> <li>3. Teacher: Write the word(s) on the board (use</li> </ol>	<p style="text-align: center;"><b><u>Formative</u></b></p> <ul style="list-style-type: none"> <li>Warm-up responses</li> <li>Graphic organizers</li> <li>Create a flow chart</li> <li>Types of pollutions worksheet</li> <li>Illustrations</li> <li>Homework</li> </ul>

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<p>water pollution with your classmates.</p> <p><i>Reading &amp; Speaking</i></p> <ul style="list-style-type: none"><li>• Read and discuss adapted text about pollution.</li></ul>	<p>a sentence strip to illustrate the definition and/or picture.)</p> <ol style="list-style-type: none"><li>4. Students: Complete graphic organizer <a href="#">Lesson%201/Graphic_organizer_1.doc</a> to label the illustrations and to sort and classify pollutants.</li><li>5. Teacher: Ask students to read the following; Pollution in our oceans, lakes, rivers and streams is a very serious problem. <i>Pollution is when we add things to the ground, the air, or the water that will make it dirty or will bring harm to the life in and around it.</i> People often dump (throw in) liquids into oceans, lakes, rivers and streams. Some of these liquids will mix with water; others will not. Think about what would happen if the lake you swim in gets <b>polluted</b>?</li><li>6. Teacher: Ask students to talk to a partner about why this is a problem? Write a sentence together about the problem.</li><li>7. Students: Complete a flow-chart to transfer information from the reading passage about cause and effect related to the topic of water pollution.</li><li>8. Students: Create a poster with a partner about water pollution, such as “Some causes of water pollution.”</li></ol> <p><b>Closure:</b> Students: Read one of the causes from their posters.</p> <p><b>Expansion/Extension:</b> Students: Brainstorm ways to reduce water pollution.</p>	
<p><b>Differentiation:</b> Use flexible grouping; deliberately pair students homogeneously or heterogeneously by proficiency level depending on the objective. Water pollution literature will be available on a variety of reading levels to accommodate ELP Levels</p> <p><b>ELP Level 1:</b> Students can use L1 to discuss the causes of pollution. Student will label the illustrations in graphic organizer.</p> <p><b>ELP Level 2:</b> Students may code-switch when discussing causes. Student will write a sentence to describe the picture in the graphic organizer activity.</p>		
<p><b>Suggested Resources:</b></p> <ul style="list-style-type: none"><li>• Graphic Organizers</li></ul>		

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- No Surprises in your Water [www.edhelper.com](http://www.edhelper.com)

### Water Pollution Lesson Plan #2

**Content Area:** English as a Second Language

**Lesson Title:** Water, wáter, everywhere and not a drop to drink!

**Timeframe:** 4 days, 90 minute block

#### Lesson Components

##### 21<sup>st</sup> Century Themes

X	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy	X	Health Literacy
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##### 21<sup>st</sup> Century Skills

x	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication	X	Collaboration
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**Interdisciplinary Connections:** Language Arts, Health, Science, Social Studies

**Integration of Technology:** Internet Research, Video podcasts, Multi-Media Presentation Software

**Equipment needed:** Computer/projection setup, student computers, Internet, presentation software

Goals/Objectives	Learning Activities/Instructional Strategies	Assessment Tasks
<p>Students will:</p> <p><i>Speaking</i></p> <ul style="list-style-type: none"> <li>• Identify and /or hypothesize problems caused by water pollution and scarcity.</li> <li>• Describe inventions used to counter water pollution and scarcity. Explain how they work.</li> </ul> <p><i>Reading and Speaking</i></p> <ul style="list-style-type: none"> <li>• Read about and discuss inventions used to address water pollution and scarcity.</li> </ul>	<p><b>Key vocabulary:</b> Hygiene, sanitation, potable, vapor, drought, flood, filtration, cholera, malnutrition, suction</p> <p><b>Key language structures:</b> Compare/contrast: <i>In this country we _____ while in _____ they have to _____.</i></p> <p><b>Warm-up:</b> Students: In a group brainstorming session, respond to questions about how they use water in their daily lives. Answers are listed and then categorized.</p> <p><b>Lesson Sequence:</b> 1. Teacher: Introduces Power Point</p>	<p><b><u>Formative</u></b></p> <ul style="list-style-type: none"> <li>• Warm-up responses</li> <li>• Graphic organizers</li> <li>• Authentic Reading /Viewing Texts</li> <li>• Response to UNICEF / NGO Podcasts</li> <li>• Homework</li> </ul> <p><b><u>Summative</u></b></p> <ul style="list-style-type: none"> <li>• Presentation</li> </ul>

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<p><i>Speaking and Writing</i></p> <ul style="list-style-type: none"><li>• List, name and discuss places and activities in everyday life where water is used.</li><li>• Compare and contrast orally and in writing their lives with those of children in the developing world.</li><li>• Compare, contrast and critique, orally and in writing, three inventions used to counter water pollution and scarcity.</li><li>• Persuade peers through oral and written presentations.</li></ul>	<p>presentation about water pollution and scarcity in the developing world.</p> <ol style="list-style-type: none"><li>2. Students: Work in groups to discuss and recall information presented in the Power Point. They will complete a graphic Organizer that will require them to provide Examples of water scarcity around the world.</li><li>3. Students: View UNICEF/NGO podcasts. Using a graphic organizer and a word bank, they will compare and contrast daily activities involving water in NJ and in the developing world.</li><li>4. Students: Work in groups where they will read and discuss authentic or adapted texts describing inventions used to counter water pollution and scarcity.</li><li>5. Students: Research one invention each by viewing suggested websites, and prepare to orally present it to their peers.</li><li>6. Students: Complete an activity sheet to guide research.</li><li>7. Students: Summarize how their invention works and critique its strengths and weaknesses in L1 and/or with sentence frames.</li><li>8. Students: Orally present their invention to whole class.</li></ol> <p><b>Closure:</b></p>	
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	<p>Students: Monitor how much water their family uses daily in their journal using math vocabulary (gallons, liters, etc.)</p> <p><b>Expansion/Extension/Homework:</b></p> <p>Students: Reflect and propose a project that we might undertake to help children affected by water scarcity in the developing world.</p> <p>Students: Imagine their own solutions to water scarcity. They might propose their own inventions or simply ways to eliminate waste.</p>	
<p><b>Note on differentiation:</b> The unit culminates with a presentation where students will describe how one of three inventions used to create access to clean water works. Based on student proficiency levels and abilities project may take on greater levels of linguistic complexity:</p> <ol style="list-style-type: none"><li>1. a captioned poster</li><li>2. a paragraph description</li><li>3. a pamphlet promoting the invention</li><li>4. a multimedia presentation.</li></ol>		
<p><b>Teacher Note:</b> These lessons build upon previously learned vocabulary and grammatical structures These lessons would occur after students have learned about the general uses of water in their own lives and have developed an understanding of the foundational vocabulary. Students should also have an understanding of the UN Millennium Goals as an organizing tool for approaching global education issues.</p>		
<p><b>Resources Provided</b></p> <ul style="list-style-type: none"><li>• PowerPoint presentation: Water Aid</li><li>• UNICEF Video Podcast related to Water (YouTube)</li><li>• Water Aid Videos (You Tube)</li><li>• Water &amp; Extreme Poverty: graphic organizer</li><li>• Focus Questions for Internet Research</li><li>• Activity sheets for Interpretive Viewing Activities</li><li>• Comprehensible Texts on three inventions: Clay Water Filters, LifeStraw, and the Hippo Water Roller</li><li>• How to make a Clay Filter: <a href="http://info.anu.edu.au/ovc/assets/claypotfilterfinalweb.pdf">http://info.anu.edu.au/ovc/assets/claypotfilterfinalweb.pdf</a></li><li>• LifeStraw: <a href="http://www.vestergaard-frandsen.com/lifestraw">http://www.vestergaard-frandsen.com/lifestraw</a></li><li>• HippoRoller: <a href="http://www.hipporoller.org/">http://www.hipporoller.org/</a></li><li>• Design Revolution by Emily Pilloton</li></ul>		