### 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

#### 21st Century Themes

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

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<th>Creativity and Innovation</th>
<th>Critical Thinking and Problem Solving</th>
<th>Communication</th>
<th>Collaboration</th>
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#### Interdisciplinary Connections: Language Arts, Health, Science, Social Studies

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

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

### Goals/Objectives

**Students will:**

**Speaking**
- Identify and /or hypothesize problems caused by water pollution and scarcity.
- Describe inventions used to counter water pollution and scarcity. Explain how they work.

**Reading and Speaking**
- Read about and discuss inventions used to address water pollution and scarcity.

### Learning Activities/Instructional Strategies

**Key vocabulary:** Hygiene, sanitation, potable, vapor, drought, flood, filtration, cholera, malnutrition, suction

**Key language structures:** Compare/contrast: In this country we _____ while in _______ they have to ______.

### Warm-up:

Students: In a group brainstorming session, respond to questions about how they use water in their daily lives. Answers are listed and then categorized.

### Lesson Sequence:

1. Teacher: Introduces Power Point

### Assessment Tasks

**Formative**
- Warm-up responses
- Graphic organizers
- Authentic Reading /Viewing Texts
- Response to UNICEF / NGO Podcasts
- Homework

**Summative**
- Presentation
### Speaking and Writing
- List, name and discuss places and activities in everyday life where water is used.
- Compare and contrast orally and in writing their lives with those of children in the developing world.
- Compare, contrast and critique, orally and in writing, three inventions used to counter water pollution and scarcity.
- Persuade peers through oral and written presentations.

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<tr>
<td><strong>Presentation</strong> about water pollution and scarcity in the developing world.</td>
<td>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.</td>
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<tr>
<td>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.</td>
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<td>Students: Work in groups where they will read and discuss authentic or adapted texts describing inventions used to counter water pollution and scarcity.</td>
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<td>Students: Research one invention each by viewing suggested websites, and prepare to orally present it to their peers.</td>
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<td>Students: Complete an activity sheet to guide research.</td>
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<td>Students: Summarize how their invention works and critique its strengths and weaknesses in L1 and/or with sentence frames.</td>
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<td>Students: Orally present their invention to whole class.</td>
<td>8. Students: Orally present their invention to whole class.</td>
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**Closure:**
**Students:** Monitor how much water their family uses daily in their journal using math vocabulary (gallons, liters, etc.)

**Expansion/Extension/Homework:**
Students: Reflect and propose a project that we might undertake to help children affected by water scarcity in the developing world.
Students: Imagine their own solutions to water scarcity. They might propose their own inventions or simply ways to eliminate waste.

**Note on differentiation:** 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:
1. a captioned poster
2. a paragraph description
3. a pamphlet promoting the invention
4. a multimedia presentation.

**Teacher Note:** 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.

**Resources Provided**
- PowerPoint presentation: Water Aid
- UNICEF Video Podcast related to Water (YouTube)
- Water Aid Videos (You Tube)
- Water & Extreme Poverty: graphic organizer
- Focus Questions for Internet Research
- Activity sheets for Interpretive Viewing Activities
- Comprehensible Texts on three inventions: Clay Water Filters, LifeStraw, and the Hippo Water Roller
- Design Revolution by Emily Pilloton