Unit 4: Water Resources

Content Area: **Global Studies**
Course(s): **Global Citizenship**
Time Period: **Week 13**
Length: **3 Weeks**
Status: **Published**

Unit Overview

In this unit, students will explore issues related to water use and preservation, researching what is currently being done at a global level as well as pondering creative solutions to problems local, national, and international

Standards

D1.5.6-8	Determine the kinds of sources that will be helpful in answering compelling and supporting questions, taking into consideration multiple points of views represented in the sources.
D2.Civ.1.6-8	Distinguish the powers and responsibilities of citizens, political parties, interest groups, and the media in a variety of governmental and nongovernmental contexts.
D2.Civ.2.6-8	Explain specific roles played by citizens (such as voters, jurors, taxpayers, members of the armed forces, petitioners, protesters, and office-holders).
D2.Civ.6.6-8	Describe the roles of political, civil, and economic organizations in shaping people's lives.
D2.Civ.13.6-8	Analyze the purposes, implementation, and consequences of public policies in multiple settings.
D2.Civ.14.6-8	Compare historical and contemporary means of changing societies, and promoting the common good.
D2.Eco.1.6-8	Explain how economic decisions affect the well-being of individuals, businesses, and society.
D2.Eco.2.6-8	Evaluate alternative approaches or solutions to current economic issues in terms of benefits and costs for different groups and society as a whole.
D2.Geo.5.6-8	Analyze the combinations of cultural and environmental characteristics that make places both similar to and different from other places.
D2.Geo.9.6-8	Evaluate the influences of long-term human-induced environmental change on spatial patterns of conflict and cooperation.
D2.Geo.10.6-8	Analyze the ways in which cultural and environmental characteristics vary among various regions of the world.
D4.6.6-8	Draw on multiple disciplinary lenses to analyze how a specific problem can manifest itself at local, regional, and global levels over time, identifying its characteristics and causes, and the challenges and opportunities faced by those trying to address the problem.
D4.7.6-8	Assess their individual and collective capacities to take action to address local, regional, and global problems, taking into account a range of possible levers of power, strategies, and potential outcomes.
D4.8.6-8	Apply a range of deliberative and democratic procedures to make decisions and take action in their classrooms and schools, and in out-of-school civic contexts.

SOC.6.2.8.C.1.b	Determine the impact of technological advancements on hunter/gatherer and agrarian societies.
SOC.6.3.8.A.3	Collaborate with international students to deliberate about and address issues of gender equality, child mortality, or education.
SOC.6.3.8.B.1	Evaluate alternative land use proposals and make recommendations to the appropriate governmental agency regarding the best course of action.
SOC.6.3.8.CS7	Recognize that the actions or inactions of individuals, groups, and nations can have intended and unintended consequences.
SOC.6.3.8.CS9	Make informed and reasoned decisions.

Essential Questions

- What things are the most basic to human life?
- What considerations must a government make for its neighbors?
- What responsibilities does each person have to preserve a healthy water supply?
- What is a responsible use of resources?
- How can we balance power needs with environmental concerns?

Application of Knowledge: Students will know that...

- Agriculture is by far the greatest draw on water resources, and water used for livestock production the greatest by far within that
- Diseases borne by water due to a lack of proper sanitation are a leading cause of death worldwide
- Extensive agricultural land use and subsequent runoff as well as improper water treatment lead to so-called "dead zones" in the oceans--areas of low-oxygen water, which can be deadly to all marine life
- Water stress can result from many factors, including overpopulation, insufficient sanitation, overfarming or farming run-off, and industrial expansion
- Water stress, water scarcity, and absolute scarcity are all terms in increasing severity for shortage of water

Application of Skills: Students will be able to...

- Come up with creative solutions to water crisis conflicts
- Create a list of things individuals can do in everyday choices to help alleviate water stress
- Evaluate current efforts to alleviate water stress
- Explain technological advancements that can help to combat water stress
- Explain the importance of supporting sustainable marine fishing
- Recognize the impact water use, dam construction, and pollution have on river systems

Assessments

- Role-play a conflict between countries that lie along the same river (Mekong, for example)

- Informal observations of group discussions
- Create a PSA to raise awareness about water scarcity, ways to reduce water use, pollution, or ocean overfishing
- Create an infographic or poster on the statistics of water use
- In a group, discuss possible solutions for water sanitation in a country or region chosen by the teacher
- Information from this unit will be included on a locally developed, mid-year or end of course benchmark assessment that may take the form of a test, performance based project, or other summative assessment

Suggested Activities

- Read and discuss articles on current events
- Write reflections on readings about current efforts to alleviate water scarcity and to correct water misuse
- Take a trip to a local water treatment site
- Watch a documentary on the use or misuse of water

Activities to Differentiate Instruction

Differentiation for special education:

- General modifications may include:
    - Modifications & accommodations as listed in the student's IEP
    - Assign a peer to help keep student on task
    - Modified or reduced assignments
    - Reduce length of assignment for different mode of delivery
    - Increase one-to-one time
    - Working contract between you and student at risk
    - Prioritize tasks
    - Think in concrete terms and provide hands-on-tasks
    - Position student near helping peer or have quick access to teacher
    - Anticipate where needs will be
    - Break tests down in smaller increments
- Content specific modifications may include:
    - One-one-one research assistance
    - Visual/oral assessments of student knowledge of the topic

Differentiation for ELL's:

- General modifications may include:
    - Strategy groups
    - Teacher conferences
    - Graphic organizers
    - Modification plan
    - Collaboration with ELL Teacher

- Content specific vocabulary important for ELL students to understand include: water stress, scarcity, and absolute scarcity, aquaculture, aquifer, sanitation, erosion, run-off

Differentiation to extend learning for gifted students may include:

- Choice of country for independent research, leadership in group discussions, presentations on research topics

Integrated/Cross-Disciplinary Instruction

Social Studies: physical geography, human/environment interactions, technological impact

Science: water cycle, pollution

ELA: research skills

Resources

- UN initiatives to combat water scarcity:
  - http://www.un.org/waterforlifedecade/scarcity.shtml
  - http://www.un.org/sustainabledevelopment/water-and-sanitation/
  - http://www.un.org/sustainabledevelopment/oceans/
- "Dead Zones:" https://www.usgs.gov/news/noaa-usgs-and-partners-predict-average-dead-zone-gulf-mexico
- Possible documentaries on the use of water : http://www.watercache.com/blog/2011/10/must-see-water-documentaries-provide-insight-into-future-water-crisis/

21st Century Skills

CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.

CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.