Themed Unit Plan: Water

Adapted from Concern Worldwide Student Resource Guide on Water: Focus on Haiti

SUBJECT: Social Studies – Global Studies

GRADE LEVEL: 9-12 (some lessons are appropriate and easy to adapt for grades 6-8)

MATERIALS: Projector, poster board, markers, chart paper, copies of student handouts, computer access for student research, GCC *Water: Focus on Haiti* Guide, GCC Water Video

GOAL: Students will understand and be able to analyze the global water crisis and how it impacts people around the world.

TABLE OF CONTENTS

LEARNING STANDARDS:

	Lesson				
Common Core Reading Standards for Literacy in History/Social Studies	**1**	**2**	**3**	**4**	**5**
Standard 2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.	•	•		•	
Standard 3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence.		•		•	
Standard 7. Integrate and evaluate multiple sources of information presented in diverse formats and media in order to address a question or solve a problem.	•	•	•	•	•
Standard 8. Assess the extent to which the reasoning and evidence in a text support the author's claims.				•	
Standard 9. Integrate information from diverse sources into a coherent understanding of an idea or event.	•	•	•	•	•
National Council for Social Studies' National Curriculum Standards	**1**	**2**	**3**	**4**	**5**
Understand that global connections are rapidly accelerating across cultures and nations and can have both positive and negative effects on nations and individuals.	•			•	•
Understand the solutions to global issues may involve individual decisions and actions, but require national and international approaches.	•	•		•	•
Understand that individuals, organizations, nations, and international entities can work to increase positive effects of global connections, and address the negative impacts of global issues.	•	•	•	•	•
Use maps, charts, and databases to explore patterns and predict trends regarding global connections at community, state, or national level.			•		
Analyze the causes and consequences of persistent, contemporary, and emerging global issues, and evaluate possible solutions.	•	•		•	
Describe and evaluate the role of international and multinational organizations in the global arena.				•	
Identify concerns, issues, conflicts, and possible resolutions related to issues involving universal human rights.	•	•	•	•	•

BLOOM'S TAXONOMY OF COGNITIVE DOMAIN:

Level	Bloom's Definition	L1	L2	L3	L4	L5
Knowledge	Remember previously learned information	•	•	•	•	•
Comprehension	Demonstrate an understanding of the facts	•	•	•	•	•
Application	Use learned material in new and concrete situations	•	•			•
Analysis	Break down objects or ideas into simpler parts and find evidence to support generalizations		•		•	
Synthesis	Compile component ideas into a new whole or propose alternative solutions	•	•			•
Evaluation	Make and defend judgments based on internal evidence or external criteria	•		•		•

Lesson 1: Water, Water Everywhere?

Objective(s):

- Students will be able to list the primary consequences of unsafe drinking water and the impact of the global water crisis on the planet.
- Students will be able to describe the water crisis in Haiti.
- Students will be able to identify solutions to unsafe drinking water and come up with their own recommendations for addressing the water crisis in Haiti.

Materials needed: GCC Water Video, Student Activity #1, computer and projector

Time: 50 minutes

Introduction: (5 minutes)

1. Introduce the lesson by telling students that they are going to watch a short video on the global water crisis with a focus on Haiti.

2. You may want to brainstorm ideas with your class about what they think the global water crisis means and how many people it affects. You may also want to point out where Haiti is on a map and find out what students know about the country, recent events around it, and how access to clean water may be a challenge there.

Lesson: (30 minutes)

3. Distribute the water video guide <see Student Activity #1> to the class. Use the pre-viewing questions as an individual brainstorming activity or for class discussion before starting the video. Ask students to take notes and answer the video questions as they are watching. Please note that after Part 1 the video should be paused to allow students to answer question 4 and then proceed with the second half.

PRE-VIEWING QUESTIONS: *(For class discussion or individual brainstorming)*

i. Make a list of how and when you used water since you woke up this morning. *(individual brainstorming)*

ii. What would you do if you did not have access to clean water at home or at school when you needed it for each item on your list? *(class discussion)*

iii. What do you think would happen if you used unclean water instead for all the times you used water today? *(class discussion)*

4. After the video, students are instructed to come up with five recommendations for solving the issue of hunger. Allow students to share ideas in small groups of four to five people. After they've discussed their individual ideas with each other, tell them to select the three best ideas as a group and share them with the entire class.

Exit ticket/Homework: (8 minutes)
Have students select one recommendation they heard at the end of class (it can be theirs or another student's) and have them write a very brief explanation why they think this is a good (or bad) idea for solving the water problem.

Lesson 2: A Walk in Citoya's Shoes

Objective(s):

- Students will be able to identify challenges and solutions to a lack of clean water access.
- Students will be able to experience and describe the perspective of someone who must travel long distances to get clean water.

Materials needed: Student Activity #2, GCC *Water: Focus on Haiti* Guide, 5-gallon buckets or several empty milk jugs, a large space for the water walk (gym, hallway, sports field, etc.)

Time: 50 minutes

Introduction: (2 minutes)

1. Explain to students that today they are going to learn more about how the water crisis affects individuals and will get to experience for themselves some of the difficulties women and children face in collecting clean water each day.

Lesson: (15 minutes)

2. Hand out a copy of the Case Study: Citoya's Story <see Student Handout #2> to each student and instruct them to answer the questions at the bottom of the page. (approximately 6 minutes) For more information about Citoya's story, check out our GCC *Water: Focus on Haiti* Guide.

3. Instruct students to work in groups of three to discuss their responses to Citoya's Story. How are their answers similar and/or different? What made them reach their conclusions? (approximately 5 minutes)

4. If there's time, ask each group to select a speaker to summarize their group's discussion in one to two sentences. (approximately 4 minutes)

5. After the students have analyzed the hardships faced by Citoya, inform students that they will get to walk in Citoya's shoes for a little while.

Activity: (30 minutes)

6. Prior to the lesson, find a large space that you can use for students to do their own water walk. You can use your school's gym, football field, or, for easier access, a long hallway. For this activity, you will need to have several gallons of water—2-5 gallons for each group of three or four students in your class. You can bring in 5-gallon buckets (enough for each group to have one), or ask students to bring in empty milk jugs in the days before this activity and fill them up the morning of the lesson.

7. Decide the distance students will be walking with the gallons of water (100 feet, a ¼ of a mile, a ½ mile, etc.) and measure it out ahead of time. The distance you have students walk will depend on how much time

and space you have. If you have to do the activity in a smaller hallway, you can have them walk back and forth several times. Tell students that they're going to get a small glimpse of what it's like for Citoya and children like her all around the world.

8. Divide students up into groups of three or four, depending on the class size. Inform them that their task is to walk the distance you have measured out for them and that they must carry the buckets or jugs full of water. Everyone in their group must participate (unless there are health restrictions).

9. If there's time at the end of the activity once everyone has completed their walk, use the following discussion questions: What words would you use to describe the water walk? Was it easier or more difficult than you expected? Do you think you would be able to carry the water for three to five miles each day?

Homework:

Have students write a diary or journal entry describing their experience with water walk. In addition to describing the experience, they should also include what their expectations were before the walk and how the actual experience compared to those expectations.

Lesson 3: Toilet Talks: Water, Sanitation, and Hygiene

Objective(s):

- Students will be able to recall basic facts about water, sanitation, and hygiene.
- Students will be able to integrate information from diverse sources into a coherent understanding of an idea or event.
- Students will be able to identify concerns, issues, and possible conflicts related to global water issues.

Vocabulary: WASH (Water, Sanitation, & Hygiene)

Materials needed: Student Activity #3, computer or projector to show video

Time: 50 minutes

Introduction: (5 minutes)

1. Think-Pair-Share: Write the following question on the board and ask students to brainstorm ideas (for 2 minutes), then ask them to share their thoughts with a neighbor (2 minutes). Ask volunteers to share their responses with the entire class.

   If you did not have a toilet to use, where would you go to the bathroom?

2. Inform students that today you're going to be talking about toilets and the importance of sanitation.
   Note: Talking about this subject matter might be uncomfortable for some students and others may not take it seriously. While it is perfectly okay to incorporate some humor in this lesson to create student interest, it is incredibly important that students walk away from this class understanding how important and life-saving toilets and sanitation efforts can be. Therefore, make sure to preview all the videos and materials before presenting them to your class to make sure they are appropriate and your students will be able to handle it. It is also imperative to set classroom norms for how to behave when dealing with uncomfortable subject matters.

Lesson: (10 minutes)

3. Watch this **video** from water.org.

4. After watching the video, facilitate a short class discussion by asking students the following questions: Before today, had you ever thought about what your life would be like without a toilet? How do you think having a toilet can prevent certain diseases?

5. Explain to students that toilets are incredibly important because they bring dignity, safety, and health.

Activity: (25 minutes)

6. Prior to the class, make enough copies of Student Activity #3 for each group and cut the statements into strips. To keep the materials organized, you may want to put each group's strips in individual sandwich bags so they do not get lost or mixed up.

7. Arrange students into groups of three to four people (there can be more if you have a large class). Provide *each* group with a set of pre-cut statements about water and a piece of chart paper or poster paper with the following chart:

Dignity	Safety	Health	Interesting Facts

8. Ask them to place (using tape or some other adhesive) each statement on their group's chart paper under the category in which they think it belongs. Some of the statements can be placed under multiple categories; therefore, students should indicate that on their chart paper if they feel a statement can fall under two different categories. (approximately 10 minutes)

9. Once the groups are finished, ask them to walk around the room (in an orderly fashion) to see what other groups put on their charts. (approximately 10 minutes)

10. After the activity, ask the students to reflect on the activity as a class by asking the following questions: Did you see any groups who put certain statements in different categories than you did? Do you agree or disagree with their choices? What statement did you find most surprising or most shocking? (approximately 5 minutes)

Exit Ticket/Homework: (5 minutes)
Ask students to write down the fact or statement they found most interesting and one question that they still have about water-related issues.

Lesson 4: Water Borne Diseases

Objective(s):

- Students will be able to identify and describe two of the most prevalent water borne diseases in the world.
- Students will be able to evaluate various explanations for actions or events and determine which explanation is most in accord with textual evidence.
- Students will be able to identify ways local communities can be utilized to solve health crises.

Vocabulary: Cholera, Malaria

Materials needed: Water Borne Diseases **PowerPoint Presentation**, Student Activity #4, Student Activity #5

Time: 50 minutes

Introduction: (2 minutes)

1. Place the following questions on the board (or projector) and ask the students to answer them using what they've learned over the past few days.
    i. A child dies every _____ seconds from a lack of clean water.

    ii. Approximately _____ people are barely surviving without water.
        1. 250 million
        2. 780 million
        3. 900 million
        4. 1.5 billion

2. Go over answers with students. Answers: 1) A child dies every 21 seconds from a lack of clean water; 2) Approximately 780 million people are barely surviving without water.

3. Explain that today you are going to be taking a closer look at some of the water borne diseases that are causing many of these deaths.

Lesson: (15 minutes)

4. Use the **PowerPoint** to introduce the topic of water borne diseases. There are notes in each slide's notes section in order to help you present this topic. If you have any questions about any of the slides' contents, contact Global Concerns Classroom at global.concerns@concern.net.

5. Have students fill in the blanks in their guided notes <see **Student Activity #4**> as you go through the PowerPoint presentation.

Activity: (28 minutes)

6. Place students in groups of 4-5, depending on class size. Ask students to silently read Part 1 of the case study on cholera in Sierra Leone <see Student Activity #5>. After everyone has had a chance to read it (5 minutes), ask them to discuss the following question and come up with some solutions in their groups (8 minutes): *If you were on Concern's child survival program (CSP) team, how would you utilize members of the community to help stop the spread of cholera? Take into account the preventative measures and treatment options we discussed earlier.*

7. Once groups have come up with a list of ideas, provide them with Part 2 of Student Activity #5. Ask them to read Part 2 and then discuss and answer the questions at the bottom of the page. (15 minutes)

Exit Ticket/Homework:

Have students turn in Student Activity #5 to assess participation and learning. If students run out of time while working on Part 2 of the case study, have them answer the questions at the bottom of the page for homework and turn it in the next day.

Lesson 5: Culminating Activity: The Game of Life[1]

Objective(s):

- Students will be able to calculate the amount of water they use each day.
- Students will be able to use critical-thinking skills to develop a collaborative group strategy.
- Students will be able to understand that individuals, organizations, nations, and international entities can work to increase positive effects of global connections, and address the negative impacts of global issues.

Materials needed: Student Activity #6, Student Activity #7, soda (enough for each person in the class to get 5 ounces), cups (enough for each student), soda can opener

Time: 50 minutes (over 2 class periods)

Day 1

Introduction: (2 minutes)

1. Ask students to call out which three countries in the world they think use the most water. Write their ideas on the board. After they're done sharing, tell them the correct answer: China, India, and the U.S.

2. Inform students that today they will examine the amount of water different individuals and countries use, and explore the reasons why some use more than others.

Lesson: (15 minutes)

3. Ask students to complete the handout on how much water they consume on average each day <see Student Activity #6>. If students do not do some of these activities (i.e. laundry, dishes), have them estimate how much water the person responsible for the chore in their household uses when doing the activity.

4. After they calculate their totals, have them share their results in groups of three or four. Ask them to reflect on the activity as a group: Were they surprised with their totals? Did they think it was going to be a higher or lower number?

5. Ask them to guess how much water they think the average American uses each day and how much water the average African family uses each day. Write their responses on the board.

6. After students have shared their ideas, tell them that the average American uses 176 gallons of water a day and the average African family uses 5 gallons of water a day. There is a place at the bottom of Student Handout #6 for them to fill in these numbers.

[1] "Game of Life" Activity adapted from a lesson by Mike Beil, teacher at Saint Vincent Ferrer High School in NYC.

Activity: (30 minutes)

7. Game of Life Activity: Divide participants into four equal groups with each group representing a fictitious country. (For this example, assume that there are 5 students in each group. If there are more or less than 20 students, you can make adjustments to the amounts.) There are four countries:
    a. **COUNTRY #1:** The owners of the soda (100 ounces, or enough for everyone participating in the activity to have 5 oz. each).
    b. **COUNTRY #2:** The owners of the official soda opening device (1 can opener).
    c. **COUNTRY #3:** The owners of the cups (20 cups, or enough for everyone participating in the activity).
    d. **COUNTRY #4:** The owners of nothing except their labor.

8. Inform participants of the following situation: Every day, country #1 produces a total of 100 ounces (or the amount equal to the number of students in your class x 5 ounces) of soda a day. Of that amount, 25 ounces (or 25%) goes to country #2 and 15 ounces (or 15%) goes to country #3. The other 60% is consumed by country #1. In the past, countries 1, 2, and 3 have worked together to ensure that everyone in the three countries got some of the soda. Country #4, on the other hand, has only received soda from charitable sources in the past. The situation has changed, though – Country #4 is asking for help and they want more soda.

9. Explain that their objective is to come up with a way to distribute the soda to the different groups. They will first meet individually in their country teams to come up with a strategy to convince the other countries that they should get the amount of soda they want for their country. Then, representatives from each country will meet in a large group "summit" to come up with an agreement on how to distribute the soda. Here are the rules (post on the board or somewhere in the room):
    a. The soda can ONLY be opened with the official soda opening device.
    b. Soda can ONLY be drunk from an official cup.
    c. The recommended daily allowance of soda for humans is 4 ounces, but people can survive on less.

10. **COUNTRY MEETINGS:** Ask the four nations to meet in their country groups to discuss a solution to the soda distribution crisis in country #4. Provide each country copies of their country information page <see Student Activity #7>. In this initial meeting, they should look at the "Points to Consider" section to help them formulate their group perspective and strategy for the next meeting with other countries. Remind them that they are lobbying for the best solution for *their* country, but some sort of agreement must be made by the end of the round table summit. Explain that they have until the end of today's class (approximately 20 minutes) to come up with a strategy. Encourage them to think creatively about how they want to convince the other countries that their solution is best. Using poster board, paper, and markers they can make signs or other visuals that they think will help them in persuading others at the summit. Towards the end of class have them select one or two group members to represent them in the larger, round table discussion tomorrow.

Day 2

11. At the beginning of day two, allow students to meet for about **5 minutes** with their individual country groups to finalize any plans or to refresh their memories on what their strategy is.

12. **INTERNATIONAL SUMMIT:** Bring the students back together for a round table summit meeting. Ask the selected representatives to sit in a circle in the middle of the room (with their country teams sitting in groups behind them). Each of the four countries will have 3 minutes each to present their point of view (**12 minutes total**), without interruption from other countries, to try to convince the other groups why their position on how to share (or not share) the soda is best.

13. For the next **10 minutes**, country representatives are allowed to ask each other questions, debate the solutions presented, and speak freely to try to convince others they're right.

14. After the open forum is finished, each representative should spend the next **8 minutes** meeting with their country teams to decide whether or not they need to change their strategy, what they are willing to compromise, etc. During this time, they are also allowed to send an "envoy" to speak with other country teams to see if they can form alliances or come to an agreement.

15. Once again, convene the open forum where country teams can continue to try to convince others that their plan is best, announce new alliances or ideas, or introduce a new strategy. They will only have **10 minutes** and an agreement *must* be decided by the end of the forum.

16. **DISTRIBUTION:** The last **5 minutes** should be spent distributing soda to students per the agreement they created.

Homework:
Ask students to answer the "Post-Activity Questions" <see last page of **Student Activity #7**> and turn their responses in the next day.

Helpful Links:

Lesson 1:

- GCC Student-Narrated Water Video: vimeo.com/72366805

Lesson 2:

- GCC *Water: Focus on Haiti* Guide: gcc.concernusa.org/media/pdf/Water.pdf

Lesson 3:

- "Where Would You Go?" Video: youtu.be/0NXh4d4MJOw

Lesson 4:

- PowerPoint Presentation on Water Borne Diseases: www.dropbox.com/s/ytegknz0u88bj2o/Water%20Borne%20Diseases%20Presentation.ppt

- Additional information on WASH Programs:
  - CDC: www.cdc.gov/healthywater/global/index.html
  - UNICEF: www.unicef.org/wash/

WATER VIDEO GUIDE

PRE-VIEWING QUESTION:

1) Make a list of how and when you used water since you woke up this morning.

VIDEO QUESTIONS

1) How many people in the world do not have access to clean water?

2) What are some of the consequences of living with unclean water and sanitation?

3) How do people in Port-au-Prince cope with the water crisis?

4) After watching Part 1, make a list of **five practical solutions** that you think will ensure that all families in the world's poorest countries will have access to clean water.

5) What are some of the short and long term solutions mentioned in Part 2 for solving the water crisis?

Post-Viewing Activity:

Make a Set of Recommendations for Haiti- Look at the solutions you came up with after Part 1 and turn them into a strategic set of recommendations for the UN to bring clean water to Haiti.

WATER VIDEO GUIDE: Teacher's Key

PRE-VIEWING QUESTION: *(for individual brainstorming and class discussion)*

1) Make a list of how and when you used water since you woke up this morning. *(individual brainstorming)*

2) What would you do if you did not have access to clean water at home or at school when you needed it for each item on your list? *(class discussion)*

3) What do you think would happen if you used unclean water instead for all the times you used water today? *(class discussion)*

Video Questions:

1) How many people in the world do not have access to clean water?

780 million people on Earth are barely surviving without access to clean water (or about 1 in 9 people).

2) What are some of the consequences of living with unclean water and sanitation?

The impact of having unclean water and sanitation include diarrhea and water-borne diseases which can lead to death, especially for children. Furthermore, many children have to travel far to collect water every day, leaving no time for school and perpetuating the cycle of poverty.

3) How do people in Port-au-Prince cope with the water crisis?

People use street water to wash themselves because water is not available in their homes. People go and look for water all around, sometimes waking up very early to walk a few miles to find a water source which may not be available or has run dry.

4) After watching Part 1, make a list of **five practical solutions** that you think will ensure that all families in the world's poorest countries will have access to clean water.

Student answers will vary.

5) What are some of the short and long term solutions mentioned in Part 2 for solving the water crisis?

In emergency settings, the distribution of buckets and the provision of portable water tanks is an immediate response. Longer term solutions include collecting rain water, building storage tanks, constructing wells, and laying down pipes.

Post-Viewing Activity:

Make a Set of Recommendations for Haiti- Look at the solutions you came up with after Part 1 and turn them into a strategic set of recommendations for the UN to bring clean water to Haiti.

Suggestions for student implementation:

1) Turn your set of recommendations to the form of a speech addressed to UN world leaders.
2) Write a letter to the President of Haiti proposing your long term solutions to providing clean water.

CITOYA'S STORY

DIRECTIONS

Read the following story about Citoya and answer the questions.

Citoya is seven years old and lives in Saut d'Eau, a rural village in Haiti. Every afternoon she spends an hour walking with her sister to the closest spring. There, the girls fill up buckets of water to carry home. The water is enough to last the rest of the day, but it must be boiled or treated before anyone can drink it. A few times a week, the family goes to the spring together to bathe and wash clothes or other items. Citoya's day is very busy—going to school, getting water, and helping in the family garden. But she is one of the lucky ones; many of the children in her village cannot afford the $10 a year that the local school costs.

1) **List some of ways your life is different from Citoya's.**

2) **Do you have anything in common with Citoya? If so, what?**

3) **Using what you learned yesterday, what solution(s) would you suggest to Citoya's community to improve access to clean water?**

Water and Sanitation Facts[1]

1) Only 63% of the world's population has access to improved sanitation, which is defined as a sanitation facility that ensures hygienic separation of human waste from human contact. (water.org; WHO & UNICEF, 2012)

2) More people have cell phones than a toilet. (water.org; UNFPA, 2011)

3) Diarrhea is the second leading cause of death among children under five. (water.org; UNICEF & WHO, 2009)

4) In 2006, 7 out of 10 people without access to improved sanitation lived in rural areas. (WHO & UNICEF, 2012)

5) An American taking a five minute shower uses more water than the average person in a developing slum uses for an entire day. (water.org; UNDP, 2006)

6) Fewer than one in three people in the world have toilets. (water.org; UNFPA 2011)

7) Women around the world collectively spend 200 million hours a day collecting water. That's equivalent to building 28 Empire State Buildings a day (in terms of the time it would take)! (water.org; WHO & UNICEF, 2010)

8) When toilets and latrines are unavailable, people are forced to defecate (empty their bowels) in open spaces such as fields or alleyways. (water.org)

9) Girls are often denied an education because schools do not have separate latrines for boys and girls, and they are forced to leave school once they reach puberty. (UNICEF, 2013)

10) An estimated 10% of the global disease burden could be reduced through improved water supply, sanitation, hygiene, and water resource management. (water.org; UN Water 2009)

11) On average, every US dollar invested in water and sanitation provides an economic return of $8 USD. (water.org; UNDP, 2006)

12) In many countries, it's unacceptable for women to relieve themselves during the day (because they have to go out in the open). These women must wait hours until nighttime in order to have privacy. This can impact health and it is often dangerous for women to be out alone at night. (water.org)

[1] All above statistics may be found at www.water.org or www.unicef.org/wash/.

WATER BORNE DISEASES: Guided Notes

DIRECTIONS:
Take notes by filling in the blanks during the presentation on water borne diseases.

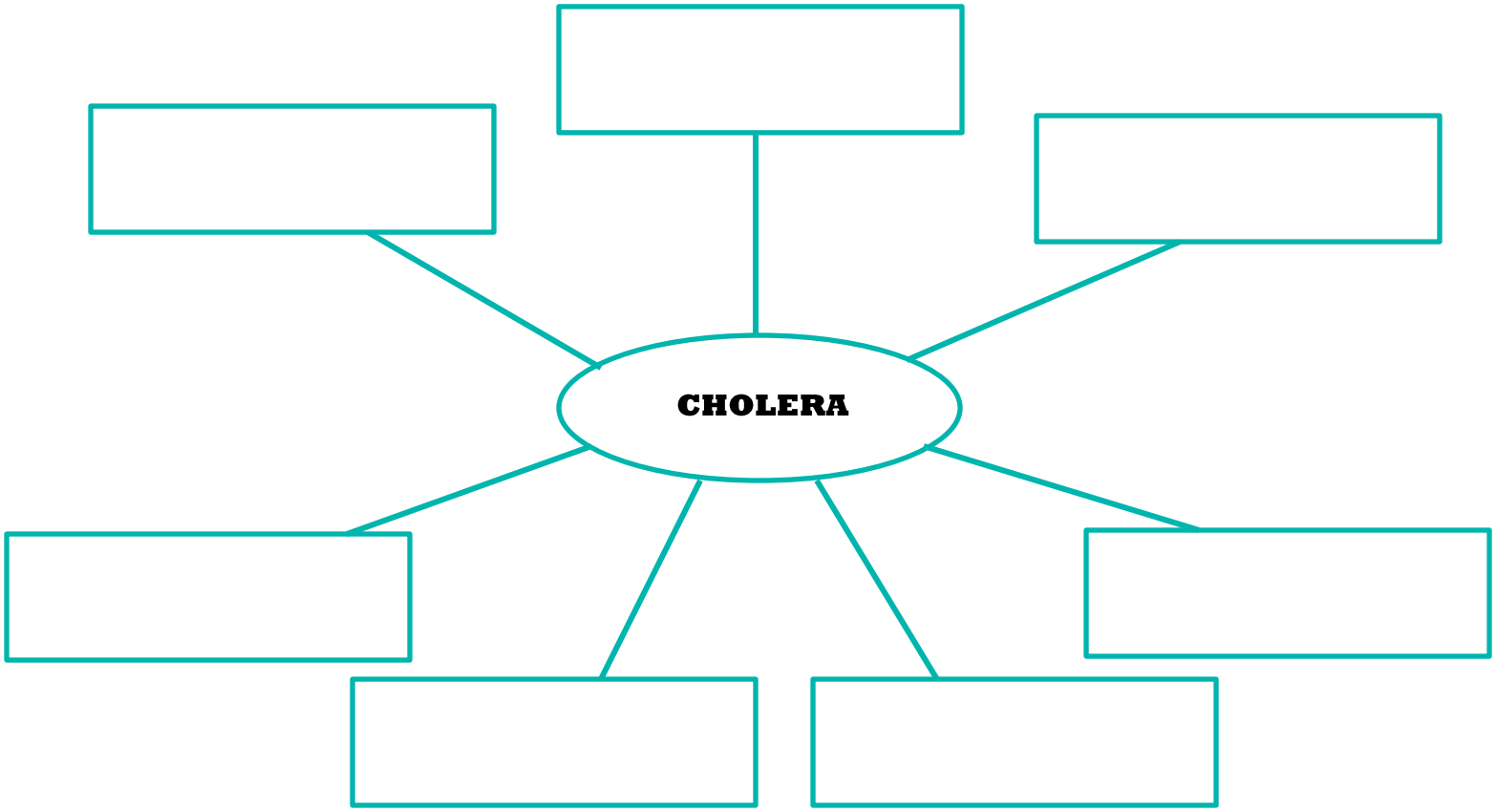
CONCERN WORLDWIDE:

- Concern Worldwide is a _____ that works in 25 of the world's poorest countries.
  a. Government Organization
  b. Part of the United Nations
  c. Non-Governmental Organization (NGO)

- What is a NGO?

CHOLERA:

Fill in the web using the different characteristics of cholera.



CHOLERA TREATMENT OPTIONS:

- List three examples of treatment options for cholera:
  - _____
  - _____
  - _____

CHOLERA PREVENTION MEASURES:

- What does WASH stand for?

W_____, S_____, & H_____

MALARIA:

- Malaria is _____.
  a. A disease caused by a lack of proper sanitation.
  b. A disease caused by drinking unclean water.
  c. A potentially fatal blood disease caused by a parasite that is spread through certain types of mosquitoes.

- Why is malaria considered a water borne disease?

MALARIA PREVENTATIVE MEASURES:

- List two ways malaria can be prevented:
  - _____
  - _____

CASE STUDY: Cholera in Sierra Leone

DIRECTIONS

In 2012, Sierra Leone, a country in West Africa, experienced a cholera outbreak. Read the following case study about Concern Worldwide's response to the crisis. First, read Part 1 and answer the questions with your group **before** moving on to Part 2.

Slum in Freetown.
Photo: Concern Worldwide

PART 1: During an emergency situation, governments and NGOs often depend on external assistance when responding to a crisis. However, it is also important to involve community members in response, including disease outbreaks. Communities can play an important role in responding to emergencies through their knowledge of the environment and its terrain, their understanding of community culture, their capacity to mobilize large numbers of volunteers and identify leaders quickly, and their invested interest in improving their community. Concern Worldwide's Al Pikin fo Liv child survival project (CSP) in Freetown, Sierra Leone took the initiative of working through existing community platforms to rapidly mobilize urban slum communities to mount a response to a nation-wide cholera outbreak.

On July 16, 2012, the government of Sierra Leone declared a national cholera emergency. A total of 7,534 cholera cases were reported by primary healthcare units in six of the country's14 districts, with 130 confirmed deaths. By September 27, the epidemic had reached 13 of 14 districts with 19,855 reported cases and 278 confirmed deaths. Of these 278 deaths, 95 occurred in the Western Area District, the most populated district in Sierra Leone with over 1.5 million people, which includes the capital city of Freetown and the CSP target geographic area. As much as 79 percent of the urban population lives in slum communities. As a result of rapid unplanned urbanization, these informal settlement areas are characterized by high population densities, poor sanitation infrastructure, exposed water sources, and a lack of waste management. These conditions foster poor health and are ripe for disease outbreaks such as cholera.

Imagine you are a part of Concern's child survival program (CSP) team. How would you utilize members of the community to help stop the spread of cholera? Take into account the preventative measures and treatment options we discussed earlier.

IDEAS FOR WAYS THE COMMUNITY CAN ASSIST WITH:

Preventative Measures

-
-
-
-

Treatments

-
-
-
-

Student Activity #5

PART 2: In October 2011, Concern Worldwide launched its five-year, USAID-supported child survival program (CSP) in ten urban slum communities of Freetown to benefit over 35,000 children under five and 36,000 women of reproductive age with a range of maternal and child health interventions. A key strategy in this project emphasizes strengthening the capacity of community members to implement actions to improve the health of their communities. To do so, the project is working with community leaders and government stakeholders to mobilize a group of community health volunteers to deliver health messages at the household level.

Concern's child survival team was able to facilitate a rapid community response to the cholera emergency in its ten operational areas of Freetown through its strong working relationships with community health platforms, including local Health Management Committees (HMCs), Ward Development Committees (WDCs), and health facility staff. In collaboration with the HMCs and WDCs, the project mobilized and trained a team of community volunteers in hygiene promotion and community surveillance as well as recognition of cholera symptoms and the importance of early care-seeking.

Community Health Worker, Freetown. Photo: Concern Worldwide

To begin this process, Concern's CSP team worked together with HMCs and WDCs to sub-divide their communities into zones according to community boundaries. Each zone was then assigned a Zone Leader who was selected based on their previous volunteer history, written and oral skills, and their ability to coordinate a group of up to 15 volunteers. Concern's CSP team and Zonal Leaders then collectively developed criteria for selecting community volunteers to conduct household visits. Volunteers were selected based on their residence and their commitment to perform specified cholera prevention and surveillance activities.

Twice a week, the Zone Leaders were responsible for mobilizing and assigning the volunteers to the households in their zone to engage in door-to-door cholera sensitization and surveillance. Concern's CSP team supported the Zone Leaders in aggregating data collected in the field and coordinating weekly activities.

A total of 433 volunteers and 38 Zone Leaders were recruited and trained in cholera sensitization, with a retention rate of 95 percent over six weeks. Volunteers visited an average of 9,700 households and 30,470 families each week. The number of weekly reported cholera cases and deaths declined rapidly in the community.

While the volunteers were given a small incentive for their efforts ($4 per week for a volunteer and $8 per week for a Zone Leader), they acknowledged that they were motivated by the pride they felt in the recognition from the community in helping to combat cholera and the solidarity they felt working with their fellow volunteers. Many of the volunteers and Zonal Leaders also noted improved levels of self-confidence and increased respect gained from the community by participating in outreach activities to lessen cholera.

How similar and/or different were your ideas after Part 1 to the solutions you read about in Part 2?

What are some challenges you might face when mobilizing community members?

CALCULATING DAILY WATER CONSUMPTION

DIRECTIONS

Use this worksheet[1] to calculate an estimate of your total water use per day. Fill out column B with the number of times you do that action in one day. Then, multiply columns A and B and place the answer in column C. Add up the subtotals in column C and put the final total in box on the bottom right.

Action	A. Gallons of water used each time	B. # of times per day?	C. Total gallons used per day for this task.
Bath	20	x	=
Shower	67 (for 15 minutes)	x	=
Teeth brushing	1	x	=
Face washing/ Shaving (with water running)	1	x	=
Washing dishes by hand	20	x	=
Running the dishwasher	9	x	=
Using laundry machine	25	x	=
Toilet flushes	5	x	=
Glasses of water	.063	x	=
TOTAL	Add up all subtotals from Column C: _____		

DID YOU KNOW?

The average American uses _____ gallons of water per day compared to the average African family, which uses _____ gallons of water each day[2]!

[1] Adapted from the City of Ann Arbor Michigan's water calculation worksheet.
[2] Source: www.water.org

GAME OF LIFE: DISTRIBUTING RESOURCES

COUNTRY #1: OWNERS OF THE SODA

THE SITUATION: Every day, **Country #1** produces a total of 100 ounces (or the amount equal to the number of students in your class x 5 ounces) of soda a day. Of that amount, 25 ounces (or 25%) goes to **Country #2** and 15 ounces (or 15%) goes to **Country #3**. The other 60% is consumed by Country #1. In the past, countries 1, 2, and 3 have worked together to ensure that everyone in the three countries got some of the soda. **Country #4**, on the other hand, has only received soda from charitable sources in the past. The situation has changed, though – Country #4 is asking for help and they want more soda.

YOUR TASK: You must come up with a way to distribute the soda to the different countries. You will first meet individually with your country team to come up with a strategy to convince the other countries that they should give you the amount of soda that you want for each member of your country. Tomorrow, representatives from each country will meet in a large group "summit" to come up with an agreement on how to distribute the soda.

THE RULES: When you are developing your country strategy and when you later meet with other countries to come up with an agreement, you should keep in mind the following rules:

- The soda can ONLY be opened with the official soda opening device.
- Soda can ONLY be drunk from an official cup.
- The recommended daily allowance of soda for humans is 4 ounces, but people can survive on less.

POINTS TO CONSIDER: As the owners of the soda your citizens are used to drinking 60% of the total soda supply per day, per person (three times the recommended amount). You like your soda, and are not happy about being told what to do. You've worked with Country #2 (who own the official soda opener) and Country #3 (who own the official cups) because you've needed their resources to open and to drink your soda. In the past, Country #4 only gets soda when someone charitably gives it to them, but now they want you to share a portion of the soda supply.

- It's your soda. Are you willing to cut back from what you're used to, just to help somebody else? Isn't that just their bad luck, after all?
- What if your soda supply runs out one day? Are you storing some in case that happens? What if your population increases?
- Who are you willing to work with? Is there anything you're willing to compromise?

YOUR STRATEGY: Before meeting with the other countries, come up with a strategy for your country. Determine:

WHAT WE WANT:

WHAT WE HAVE TO OFFER:

HOW WE ARE GOING TO CONVINCE OTHERS WE SHOULD GET IT:

GAME OF LIFE: DISTRIBUTING RESOURCES

COUNTRY #2: OWNERS OF THE OFFICIAL SODA OPENING DEVICE

THE SITUATION: Every day, **Country #1** produces a total of 100 ounces (or the amount equal to the number of students in your class x 5 ounces) of soda a day. Of that amount, 25 ounces (or 25%) goes to **Country #2** and 15 ounces (or 15%) goes to **Country #3**. The other 60% is consumed by Country #1. In the past, countries 1, 2, and 3 have worked together to ensure that everyone in the three countries got some of the soda. **Country #4**, on the other hand, has only received soda from charitable sources in the past. The situation has changed, though – Country #4 is asking for help and they want more soda.

YOUR TASK: You must come up with a way to distribute the soda to the different countries. You will first meet individually with your country team to come up with a strategy to convince the other countries that they should give you the amount of soda that you want for each member of your country. Tomorrow, representatives from each country will meet in a large group "summit" to come up with an agreement on how to distribute the soda.

THE RULES: When you are developing your country strategy and when you later meet with other countries to come up with an agreement, you should keep in mind the following rules:

- The soda can ONLY be opened with the official soda opening device.
- Soda can ONLY be drunk from an official cup.
- The recommended daily allowance of soda for humans is 4 ounces, but people can survive on less.

POINTS TO CONSIDER: You are the owners of the official soda opening device. There is only 1 device and it is the only way anyone can open the soda. As part of your agreement with Country #1, you have always received 25 ounces of soda per day and have also worked with Country #3 (who own the official cups). In the past, Country #4 only gets soda when someone charitably gives it to them, but now they want you to share a portion of the soda supply.

- Nobody is drinking any soda without your opening device.
- But, how long before somebody else invents/builds one?
- If you are expected to give up some of your daily ration of soda, you will be below the minimum recommended amount.

YOUR STRATEGY: Before meeting with the other countries, come up with a strategy for your country. Determine:

WHAT WE WANT:

WHAT WE HAVE TO OFFER:

HOW WE ARE GOING TO CONVINCE OTHERS WE SHOULD GET IT:

GAME OF LIFE: DISTRIBUTING RESOURCES

COUNTRY #3: OWNERS OF THE OFFICIAL SODA CUPS

THE SITUATION: Every day, **Country #1** produces a total of 100 ounces (or the amount equal to the number of students in your class x 5 ounces) of soda a day. Of that amount, 25 ounces (or 25%) goes to **Country #2** and 15 ounces (or 15%) goes to **Country #3**. The other 60% is consumed by Country #1. In the past, countries 1, 2, and 3 have worked together to ensure that everyone in the three countries got some of the soda. **Country #4**, on the other hand, has only received soda from charitable sources in the past. The situation has changed, though – Country #4 is asking for help and they want more soda.

YOUR TASK: You must come up with a way to distribute the soda to the different countries. You will first meet individually with your country team to come up with a strategy to convince the other countries that they should give you the amount of soda that you want for each member of your country. Tomorrow, representatives from each country will meet in a large group "summit" to come up with an agreement on how to distribute the soda.

THE RULES: When you are developing your country strategy and when you later meet with other countries to come up with an agreement, you should keep in mind the following rules:

- The soda can ONLY be opened with the official soda opening device.
- Soda can ONLY be drunk from an official cup.
- The recommended daily allowance of soda for humans is 4 ounces, but people can survive on less.

POINTS TO CONSIDER: You are the owners of the official cups. There are enough cups for all players in all four countries. You have an agreement with Country #1, where you receive 15% of the total soda amount per day (approximately 3 ounces per person). That means people in your country already receive less than the recommended amount of soda each day. You are able to receive your soda because of an agreement between Country #1 and Country #2, because Country #1 needs them for their official soda opening device. In the past, Country #4 only gets soda when someone charitably gives it to them, but now they want you to share a portion of the soda supply.

- Nobody is drinking any soda without your cups!
- Why does Country #2 get more soda per person than you do? You're already below the minimum recommended amount.
- Should you really be expected to give up something to help the people of Country #4?

YOUR STRATEGY: Before meeting with the other countries, come up with a strategy for your country. Determine:

WHAT WE WANT:

WHAT WE HAVE TO OFFER:

HOW WE ARE GOING TO CONVINCE OTHERS WE SHOULD GET IT:

GAME OF LIFE: DISTRIBUTING RESOURCES

COUNTRY #4: OWNERS OF NOTHING BUT YOUR LABOR

THE SITUATION: Every day, **Country #1** produces a total of 100 ounces (or the amount equal to the number of students in your class x 5 ounces) of soda a day. Of that amount, 25 ounces (or 25%) goes to **Country #2** and 15 ounces (or 15%) goes to **Country #3**. The other 60% is consumed by Country #1. In the past, countries 1, 2, and 3 have worked together to ensure that everyone in the three countries got some of the soda. **Country #4**, on the other hand, has only received soda from charitable sources in the past. The situation has changed, though – Country #4 is asking for help and they want more soda.

YOUR TASK: You must come up with a way to distribute the soda to the different countries. You will first meet individually with your country team to come up with a strategy to convince the other countries that they should give you the amount of soda that you want for each member of your country. Tomorrow, representatives from each country will meet in a large group "summit" to come up with an agreement on how to distribute the soda.

THE RULES: When you are developing your country strategy and when you later meet with other countries to come up with an agreement, you should keep in mind the following rules:

- The soda can ONLY be opened with the official soda opening device.
- Soda can ONLY be drunk from an official cup.
- The recommended daily allowance of soda for humans is 4 ounces, but people can survive on less.

POINTS TO CONSIDER: You own nothing but your labor. At the moment, the people of your country average less than 1 ounce of soda per day, which you receive from charitable sources. You are drastically below the recommended 4 ounces of soda per day and your population is suffering greatly because of it.

- You desperately need more soda, so it is critical that you convince other countries to help you. Otherwise, the people in your country will continue to suffer a great deal.
- Why should the other countries help you? For moral reasons alone, or are there other reasons you can offer?
- Which country might be your biggest ally (or will be most likely to help you)?

YOUR STRATEGY: Before meeting with the other countries, come up with a strategy for your country. Determine:

WHAT WE WANT:

WHAT WE HAVE TO OFFER:

HOW WE ARE GOING TO CONVINCE OTHERS WE SHOULD GET IT:

GAME OF LIFE: DISTRIBUTING RESOURCES

NAME: _____ COUNTRY TEAM #: _____

POST-ACTIVITY QUESTIONS:

1) Summarize your country's strategy.

2) What factors and situations did you consider when choosing that strategy?

3) Did any group have an advantage over another group in the process? Was the process fair?

4) Was your strategy successful in that you got what you wanted? Why or why not?

5) How can we relate this activity to the global consumption of water?