



GLOBAL WATER LINK

Unit 2: Poison Pump

Unit summary:

In this unit, students will learn about waterborne epidemics: how they spread, the impact on the community, and prevention methods.

- In terms of language:
 - Students will learn epidemic-related vocabulary and how to write and deliver an action plan tailored to their community.
- In terms of content (science):
 - Students will learn how to form, test, and present hypotheses with supporting evidence.
- In terms of culture:
 - Students will compare/contrast their local communities with their international partners through a service-learning project.

Assessment:

- ___% Create your own detective game
- ___% Action steps for service-learning
- ___% Reflection

Create your own detective game:

Students will build upon their knowledge of cholera to create their own local cholera detective game to share with their international partners. This project will include the conception, creation, and sharing/presenting of the project.

- In groups, students will create their own local school maps, victim cards, and clue cards.
- Students will prepare videos explaining their local maps to their international partners and teachers will send the local games to the partner school.

This digital sharing will help the partner school understand the local environment of their counterparts, build mutual understanding, and strengthen relationships.

Action steps for service-learning:

Based on a solution determined by the class, students will be asked to write down specific actionable steps that they can implement in their community to help prevent the spread of waterborne diseases. Ideally, these steps would be used to create a class service project that would be completed outside of class time.

Reflection:

Students will write a reflection piece on waterborne epidemics and how these epidemics impact not only their community, but their international partner's community in present day. Students will reflect on the history and future of waterborne diseases, as well as how they helped their community improve upon the situation (through the service-learning project). Students will then compare and contrast their reflections with their partner's community service project.

Unit goals:

	Language	Content (science)	Culture
Cognitive	Students will be familiar with waterborne epidemic vocabulary. (CL)	Students will be able to identify what a hypothesis is and how it is used. (CS)	Students will gain perspective, knowledge, and respect for other cultures by learning about the recent history of other waterborne diseases. (CC)
Performance	Students will be able to create and present locally relevant issues related to waterborne epidemics. (PL)	Students will use the scientific method framework to create and test hypotheses. (PS)	Students will share localized versions of content with international counterparts to increase cultural awareness. (PC)
Affective	Students will feel comfortable discussing topics about epidemiology. (AL)	Students will feel excited and curious about following clues to solve a challenge on their own. (AS)	Students will feel pride being able to come up with a solution to a problem relevant to their community and sharing it with their counterparts. (AC)
Metacognitive	Students will be in a position to design and create a game backward from solution to clues. (ML)	Students will be able to apply what they learned about the history of epidemiology to present day. (MS)	Students will begin to be aware of the differences and similarities in environments between their school and their international partners' school. Students will begin to be aware of the dangers of cross-cultural stereotypes through the topic of epidemiology. (MC)

Unit outline (subject to change):

Lesson	Topics
1	John Snow and epidemiology <ul style="list-style-type: none">• Introduce students to John Snow, epidemiology, and waterborne epidemic-related vocabulary through articles and discussions about the 1854 cholera outbreak in London.
2	Cholera: find the source! <ul style="list-style-type: none">• Have students practice making and testing hypotheses using the John Snow detective game to find the source of the 1854 cholera epidemic in London.
3	Make your own detective game <ul style="list-style-type: none">• Guide students through the creation and design of their own local versions of the John Snow detective game.
4	GWL exchange: local detective swap <ul style="list-style-type: none">• Facilitate a digital exchange where students create videos introducing their detective games and school environment to their international partners.
5	Prevention/Service project <ul style="list-style-type: none">• Students will learn how to design service projects for the local community and how to implement these projects through action plans.
6	Reflection/Focus on global impact <ul style="list-style-type: none">• Have students review content and look at the global implications, comparing and contrasting service projects with their international partners.