

Water deadly connections

Level: intermediate/ upper- intermediate (B1-B2)

Time: 45 minutes

Aims:

- To teach students about water deadly connections
- To introduce some facts about cholera
- To introduce John Snow- the father of modern epidemiology
- To use John Snow's strategy and map
- To teach some facts about modern world and cholera outbreaks.

Language functions:

- To describe and analyze John Snow's strategy
- To use authentic materials
- To use mathematical skills to describe and solve a problem
- To transfer information.

CLIL: Maths/ Biology/ IT Technology

Materials: Web pages

STAGE	AIMS	PROCEDURE	TIME	MATERIALS
Warm-up activity	To get students interested in the topic. To introduce some facts about water deadly connections.	Teacher asks students if water can be a source of epidemic, disease or other medical problems. Short discussion. Next students get Worksheet A with some facts about water. Students may discuss the facts with their partners or in a group. Teacher explains students some facts about water and diseases (that before 18 th century there was no connection between water and any kind of illness, it was believed that the air was only responsible for any kind of epidemic diseases and that things changed in 1861 when a 'germ theory of disease' was introduced.	2 min 3 min	Worksheet A
Main part of the lesson	To introduce John Snow and his work. To analyze some data. To work with map. To transfer information.	1. John Snow – introduction Teacher explains that John Snow – a father of modern epidemiology was a British physician, who analyzed and studied a cholera outbreak in London in 1854. Students go to page: http://www.ph.ucla.edu/epi/snow.html to look at some facts connected with John Snow. 2. Task – in John Snow's footsteps. Teacher asks students to go to page: http://www.ph.ucla.edu/epi/snow/watermap1856/watermap_1856.html and look at the map of London in 1856 and try to guess where the cholera outbreak might have happened. Next Teacher gives students Worksheet B – a map of John Snow. Teacher asks students to examine the table of the cholera victims location. Students place a mark in an appropriate box for each 56 victims.	3-4 min 30 min	http://www.ph.ucla.edu/epi/snow.html http://www.ph.ucla.edu/epi/snow/watermap1856/watermap_1856.html Worksheet B and C

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		<p>Students may use a well known system where four marks are crossed with the fifth one (see Teacher's notes). After students mark the map, they can analyze the visual layout of data. Next Teacher gives students Worksheet C and asks them to answer the questions. Teacher should explain any words that students may not understand such as clustering, grid box, even, odd.</p> <p>Teacher checks the answers with students. For this task students can work in pairs or small groups.</p>		
Wrap-up	To summarize the information.	<p>Students go to page: http://gamapserver.who.int/mapLibrary/app/searchResults.aspx where they can see that cholera is a serious problem in our modern world. They can find out which countries reported cholera outbreaks. This can be a topic for their projects on modern epidemic diseases, which can be done by means of webquest.</p>	5 min	http://gamapserver.who.int/mapLibrary/app/searchResults.aspx

Sources:

<http://www.ph.ucla.edu/epi/snow.html>

http://www.ph.ucla.edu/epi/snow/watermap1856/watermap_1856.html

<http://gamapserver.who.int/mapLibrary/app/searchResults.aspx>

Credits: map and pictures: www.ph.ucla.org