

PUBLIC HEALTH IN PRENTER HOLLOW, W.VA. LESSON PLAN

Description

Students will investigate the history, current events, water-quality and other environmental impacts of declining community health due to coal-slurry-poisoned water. They will use, as a case study, the Aurora Lights multimedia website project, Journey Up Coal River¹, that features maps of Prenter Hollow in southern West Virginia. Students can demonstrate their experiences through class discussion and/or written products.

Suggested Resources

- The Mountaintop Removal² theme of the Journey Up Coal River website is recommended as corequisites.
- The following can eliminate the need for paper:
 - The Still Moving Mountains CD³
 - Computer lab hours or an in-class projector to facilitate the use of the website
 - Google Earth layers⁴
 - “What's My Connection to Mountaintop Removal?”⁵

Introduction to Public Health in Prenter Hollow

General geographical, cultural and historical information is available in the *Prenter Hollow*⁶ section of the Public Health in Prenter Hollow theme. Maps via the computer and projector are ideal here for the sense of scale and an aerial view of the Prenter area. Make use of the maps in the Prenter theme⁷ as well as Google Earth. With the latter, be sure to zoom in and out and move around to see the land from multiple perspectives.

¹ Located at <http://journeyupcoalriver.org>

² Located at http://auroralights.org/map_project/theme.php?theme=mtr&article=primary

³ Located at <http://auroralights.org/journey/index.php>

⁴ Information about at <http://ilovemountains.org/multimedia/#ge>

⁵ Located at <http://ilovemountains.org/myconnection>

⁶ Located at http://auroralights.org/map_project/theme.php?theme=prenter&article=primary

⁷ Located at http://auroralights.org/map_project/theme.php?theme=prenter&article=primary, then click on the “Aerial” button below the map.

Ask the class to share words or images that come to mind when talking about West Virginia, Appalachia and coal. Spend some time going over the different sites featured and what's featured in the area, especially those of student interest. Clicking on the small clock at the top of the screen will show historic imagery of the area. Demonstrate the historic imagery by moving the bar to the left to show older views. Note to students the change between April of 1996 and today.

Suggested Activities

1. Break the class into a group for each section for group research projects using the information in their section as well as outside sources.
2. Ask students to perform a general Internet search and an Internet news search on the issues that they found in their particular place. How do these rank on the search engine? Are they visible issues?

Discussion Questions

1. What connections exist between human health and mountaintop removal? Describe the state's response. Why do you think they are slow to react?
2. If Prenter was your community, how would you react?
3. Could this ever happen in your hometown? Why or why not?
4. What do other resources say about the effects of contact with chemicals produced by the wet coal washing process? Is there a better way to obtain energy that doesn't produce toxic sludge?
5. If you were a local doctor, what would your advice be to your patients? What course would you take to promote the health of the community?
6. If you were a political representative for this area, what would you do?

Suggestions for further study:

1. Public policy and coal slurry, such as the saga of SCR-15 in West Virginia.^{8 9 10}
2. Rawl Sales lawsuit against Massey Energy claiming their water was contaminated by that company's underground slurry injection practices.¹¹
3. Other communities affected by poisoned groundwater, for example:
 1. Hinkley, CA: community poisoned by hexavalent chromium—Erin Brockovich

⁸ WV Department of Environmental Protection page located at <http://www.wvdep.org/item.cfm?ssid=9&sslid=989>

⁹ Reporter's run-down of SCR-15 located at <http://blogs.wvgazette.com/coaltattoo/2009/05/29/wvdeps-dont-ask-dont-tell-policy-on-coal-slurry/>

¹⁰ Sludge Safety Project's slurry study located at <http://blogs.wvgazette.com/coaltattoo/2009/03/19/citizen-slurry-study-ii/>

¹¹ News article located at <http://wvpubcast.org/newsarticle.aspx?id=7742&terms=slurry>

2. Urban areas, such as Washington, D.C.¹²
3. Bhopal, India: After the Union Carbide pesticide plant explosion in 1984, that has killed as many as 25,000 people, and its lasting water contamination
4. Camp Legune, NC: families not warned for years about their toxic drinking water^{13 14}

Resources:

1. Burns, S.S. 2007. *Bringing Down the Mountains: The Impact of Mountaintop Removal Surface Coal Mining on Southern West Virginia Communities*. Morgantown: West Virginia Univeristy.
2. Steingraber, S. 1998. *Living Downstream*. New York: Vintage Books, A Division of Random House, Inc.
3. Barzilay, J. M.D., Weinberg, W. M.D., Eley, J. M.D. 1999. *The Water We Drink: Water Quality and Its Effects of Health*. New Jersey: Rutgers University Press.
4. Vigil, K. 2003. *Clean Water: An Introduction to Water Quality and Water Pollution Control*. Oregon: Oregon State University Press.
5. Shnayerson, Michael, 2008. *Coal River: How a few brave Americans took on a powerful company—and the federal government—to save the land they love*. New York: Farrar, Straus and Giroux.

¹² Reuters article about lead in D.C. water supply located at <http://www.reuters.com/article/pressRelease/idUS175296+17-Feb-2009+PRN20090217>

¹³ CBSNews, located at <http://www.cbsnews.com/stories/2007/06/12/tech/main2917545.shtml>

¹⁴ Boston Globe, located at http://www.boston.com/news/nation/washington/articles/2007/06/13/marine_families_tie_tainted_water_to_illnesses/