Civic Minds

Date: Friday, February 17, 2017

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Article Title: High-school senior was inspired by trip to India

Section: NW Monday, B1

Learning Objectives

✓ Students will examine global issues and how technologies can impact the world' water supply.

✓ Students will think about what inspires them to action.

CCSS Standards

Social Studies EALR 1: Civics

The student understands and applies knowledge of government, law, politics, and the nation's fundamental documents to make decisions about local, national, and international issues and to demonstrate thoughtful, participatory citizenship.

Social Studies EALR 3: Geography

Understands the cultural universals of place, time, family life, economics, communication, arts, recreation, food, clothing, shelter, transportation, government, and education.

Social Studies EALR 4: History

Analyzes the motives and interests behind an interpretation of a recent event.

Social Studies EALR 5: Social Studies

- Analyzes consequences of positions on an issue or event.
- Analyzes the short-term and long-term implications of decisions affecting the global community.

Vocabulary

Look up the definition of *gantlet*. Please write the definition and create a new sentence, using your own words.

"If Khandelwal survives a *gantlet* of questioning and wins the top prize of \$250,000, he could help provide a new source of potable water to entire continents."

Pre-Reading Questions

- What does it mean to be inspired?
- What inspires you?
- Can young people make a difference in this world? Why or why not?

 Have you ever been inspired to action? Have you ever created or helped an organization that you were passionate about?

Comprehension Questions

- 1. When Apoorv Khandelwal was little, his family took him to visit relatives in India. What did he see that motivated him to spend most of his middle-school years pondering ways to help?
- 2. Last month, Khandelwal, now a senior at Tesla STEM High School in Redmond, learned that he had been singled out as a finalist one of only 40 nationwide in the Regeneron Science Talent Search. What did he do?
- 3. In March, he'll travel to Washington, D.C., to compete against 39 other brainiacs. Why were each of these innovators chosen?
- 4. If Khandelwal survives a gantlet of questioning and wins the top prize of \$250,000, he could help provide what?
- 5. Khandelwal, 17, reaches out to a Van de Graaff generator in an Advanced Physics class at Tesla STEM High School. He is the only state student chosen as a Regeneron Science Talent Search finalist, for his desalination work. What does desalination mean?
- 6. What is the name of his project? What does it mean?
- 7. How did he make a graphene filter?
- 8. What do his parents do? How did that help him?

Class Discussion Questions or Journal/Essay Prompts

When Apoorv Khandelwal was little, his family took him to visit relatives in India. The sight of a woman walking miles in the heat with two clay pots on her head just to get clean water astonished the boy, so much that he spent most of his middle-school years pondering ways to help.

- What is something that astonishes you about something that's still happening in our modern-day world?
- Do you think about water? Not having enough?
- Can you imagine carrying heavy pots of water on your head to use at home?
- Can you imagine living with a shortage of clean water? How would that make you feel?
- Apoorv could've just seen the plight and then came home and forgot about it.
 Why did it weigh on him? Why did it impact him on a deeper level? Why did he dedicate years of research to finding a remedy for this problem?

The provision of clean water is a significant global challenge — there's limited availability for nearly half of the world's population. And because less than 1 percent of the water on Earth is fresh water, reverse desalination is the obvious answer. But the process is very expensive, especially for developing nations.

- Prior to reading this article, did you know that clean water is a large global problem?
- Did you know that less than 1% of the water on earth is fresh water?
- Did you know about the process of desalination?
- Why do you think this technique hasn't been put into place before?
- What would you like to learn more about, in regards to this global issue?

My AP Environmental Science class helped me understand the difficulty of finding solutions for global problems and prompted me to ask questions. My teachers egged me on to continue exploring.

- Do you have a parent, teacher or class that encourages you to find solutions to deeper problems...to ask tough questions?
- Do you have people in your life that pushes you to continue learning and exploring? How do they do this? Does it encourage and inspire you to do greater things? Why or why not?
- If you don't have someone, who could you ask for guidance or mentorship?
- Do you have an interest in science? Why or why not?

<u>Civic Minds Activity</u>: Take a moment to review today's print replica of The Seattle Times. Can you find a story that stands out to you regarding a global issue or someone that was inspired to help others?

Civic Minds in The Seattle Times is posted to the Web on Friday. Please share the NIE program with other teachers. To sign-up for the print replica version of the newspaper please call 206/652-6290 or toll-free at 1-888/775-2655.

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