Population and Resource Distribution

Lesson Video: Grades 6-8

Overview

Teacher: **Becky Forristal**

Grade: **7**

School: **Rockwood Valley Middle School**

Location: **Glencoe, Missouri**

NCSS Standards-Based Themes: People, Places, and Environments; Power, Authority, and Governance; Production, Distribution, and Consumption; Global Connections

Content Standards: Economics, Civics, Geography

Video Summary

How are resources divided among the world's population? Who are the "haves" and the "have nots"? What is life like for each group? What actions can citizens of the world take to rectify inequities? To help her students understand the complex issues surrounding the distribution of resources throughout the world, Becky Forristal uses a role-playing and simulation exercise.

Each student randomly receives an arm band containing statistics about a specific area of the world: birth and death rates, life expectancy, literacy rates for men and women, population growth rate, and percentage of arable land, for example. After analyzing the data on their arm bands, students predict what kind of life they might expect as a resident of a particular region.

The regions of the world are outlined in tape on the floor: Africa, Asia, Russia and Eastern Europe, Western Europe, Canada, the United States, and Latin America. Students stand in the mapped area for their assigned region and compare population distribution. Symbols representing different resources—like food, oil, and Gross Domestic Product—are given to the leaders of each region, who must decide how to distribute them and what to do if there are not enough to support the population. This simulation fosters discussion among Ms. Forristal's students about economics, geography, the role of governments, and global connections.

Standards

Expectations of Excellence: Curriculum Standards for Social Studies defines what students should know and be able to do in social studies at each educational level. This lesson correlates to the following standards for middle school students:

III. People, Places, and Environments

Describe ways that historical events have been influenced by, and have influenced, physical and human geographic factors in local, regional, national, and global settings; observe and speculate about social and economic effects of environmental changes and crises resulting from phenomena such as floods, storms, and drought; propose, compare, and evaluate alternative uses of land and resources in communities, regions, nations, and the world.

Standards, cont'd.

VI. Power, Authority, and Governance

Analyze and explain ideas and governmental mechanisms to meet needs and wants of citizens, regulate territory, manage conflict, and establish order and security; explain conditions, actions, and motivations that contribute to conflict and cooperation within and among nations.

VII. Production, Distribution, and Consumption

Give and explain examples of ways that economic systems structure choices about how goods and services are to be produced and distributed; explain and illustrate how values and beliefs influence different economic decisions; use economic concepts to help explain historical and current developments and issues in local, national, or global contexts.

IX. Global Connections

Analyze examples of conflict, cooperation, and interdependence among groups, societies, and nations; explore the causes, consequences, and possible solutions to persistent, contemporary, and emerging global issues, such as health, security, resource allocation, economic development, and environmental quality; describe and explain the relationships and tensions between national sovereignty and global interests in such matters as territory, natural resources, trade, use of technology, and welfare of people; identify and describe the roles of international and multinational organizations.

Content Standards: Economics, Civics, Geography

About the Class

Classroom Profile

> "The bottom line is: citizenship. It's about getting along with other people in the world. It's also about understanding our differences and the reasons for political asylum, foreign aid, even war. I want my students to have a global perspective, to think of themselves as global citizens, and to understand that they have not only a role, but a responsibility." —Becky Forristal

Year at a Glance
Five Themes of Geography
Asia and World Religions
Latin America and Economics
Africa
Comparative Governments
The U.S.
Europe

Becky Forristal teaches seventh-grade geography at Rockwood Valley Middle School in Glencoe, Missouri. Situated in the suburbs just outside of St. Louis, Glencoe is a predominantly Caucasian, professional community. It is home to large corporations like Ralston Purina, Lucent Technologies, and Chrysler. Rockwood Valley Middle School reflects this corporate and often transient population. Because of their parents' job changes or transfers, many of the students at the school have come from or will move to another school at some point. Some students are residents from other countries.

Ms. Forristal began the year with a unit on the five themes of geography, looking at characteristics of each region of the world and why people move from one region to another. She also used a thematic approach in subsequent units. For example, students learned about Asia in the context of studying world religions. Then students explored

About the Class, cont'd.

Latin America through the lens of economics. By the time they started this lesson, Ms. Forristal's class had already studied developing countries' employment, unemployment, and productivity. Students were familiar with concepts like Gross Domestic Product (GDP), supply and demand, exchange rates, and how governments influence economic systems. They had also studied the interdependency of countries in Latin America.

Throughout the year, Ms. Forristal began each class with a question to stimulate discussion and launch the lesson. Just prior to the lesson shown in "Population and Resource Distribution," Ms. Forristal asked students: If you could live anywhere in the world, where would you live? To prepare for the simulation, she made arm bands, mapped out the regions in tape on the floor, and gathered materials to represent different resources. Then students analyzed the statistics on their arm bands and predicted the quality of life for people in the different regions of the world. As the simulation progressed, Ms. Forristal asked questions to stimulate thinking, gave additional information as needed, and summarized often to help students maintain their focus. After the simulation, Ms. Forristal's students answered questions that helped them see the distribution of resources from different perspectives, including how the simulation related to their own lives.

Lesson Background

Read this information to better understand the lesson shown in the video.

Content: Too Many People, Too Few Resources

Since 1960, the world population has doubled to 6.1 billion people. According to the United Nations' *Long-Range World Population Projections* (1999), North America and Europe represent the smallest percentages of the world's population, and Latin America, the Caribbean, and Africa represent the largest. In fact, ninety-nine percent of the world's population growth is concentrated in underdeveloped countries. By 2025 only three of the more developed countries—the United States, Russia, and Japan—are expected to be among the world's most highly populated. Even so, The *New York Times 2002 World Almanac* reports that by 2050, 87.3 percent of the world's population will be living in underdeveloped nations.

Just as world population has increased, so have consumption costs more than doubled in the last 30 years. However, most increases have been in wealthy countries. While the wealthiest countries account for only 20 percent of the globe's population, they consume approximately 86 percent of the world's resources. Meanwhile, the poorest 20 percent of the world's population account for a mere 1.3 percent of consumption. The United Nations Population Fund summed it up when they declared that "half the world still exists on less than $2 a day." And it's expected to get worse, as poverty, AIDS, urbanization, and aging populations all contribute to increasing stress on resources.

Teaching Strategy: Role-Playing and Simulations

Interactive teaching strategies like role-playing and simulations work best when they're presented spontaneously to students. However, effective use of role-playing requires preparation, a well-defined format, clearly defined goals and outcomes, and time to debrief after the simulation. Role-playing and simulations require students to improvise using the information available to them. In the process, they encourage critical thinking and cooperative learning. These teaching tools can also be effective in helping students clarify attitudes and ideologies and make connections between abstract concepts and real-world events.

Watching the Video, cont'd.

As you reflect on these questions, write down your responses or discuss them as a group.

Before You Watch

Respond to the following questions:

- What are the challenges and benefits of teaching provocative issues like inequities in the distribution of resources?
- What are the advantages of using simulations and role-playing as classroom strategies?
- What are some teaching strategies you use to help students relate abstract concepts to their own lives?

Watch the Video

As you watch "Population and Resource Distribution," take notes on Ms. Forristal's instructional strategies, particularly how she prepares, implements, and debriefs the simulation. Write down what you find interesting, surprising, or especially important about the teaching and learning in this lesson.

Reflecting on the Video

Review your notes, then respond to the following questions:

- What struck you about the lesson in terms of classroom climate, background, preparation, strategies, and materials used?
- What concepts were students learning? How do these concepts relate to one another and to Ms. Forristal's goals for the unit?
- What did you notice about how Ms. Forristal conducted the simulation?
- How is this class different from yours? How might you introduce these concepts to your own students?

Watching the Video, cont'd.

Looking Closer

Here's an opportunity to take a closer look at interesting aspects of Ms. Forristal's lesson.

Predicting Lifestyle From Data: Video Segment

Go to this segment in the video by matching the image (to the left) on your TV screen. You'll find this segment approximately two minutes into the video. Watch for about five minutes.

The students are given arm bands that contain statistics about their assigned region. They begin to discuss what these statistics imply about how they will live as residents of the region. They move into their assigned regions and begin to make observations.

- What does Ms. Forristal do to introduce the simulation and get students engaged?
- What evidence do you see that the students are engaged and are assuming the roles of people living in specific regions?
- How does Ms. Forristal keep the lesson focused and moving forward? What are some of the specific strategies she employs to keep students on task?
- What do you notice about how Ms. Forristal uses questions, summary statements, and supplementary information?

Regions, Population, and Resource Distribution: Video Segment

Go to this segment in the video by matching the image (to the left) on your TV screen. You'll find this segment approximately 17 minutes into the video. Watch for about four minutes.

The student leaders in each region receive symbols representing food, energy, and wealth to distribute among the people living in their region. Students share insights they have gained from the simulation, and then debrief, offering their own points of view.

- What can Ms. Forristal learn from the answers and insights offered by her students?
- What does Ms. Forristal do to encourage students to consider an issue from several perspectives?
- What do students take away from the debriefing? How might Ms. Forristal build on their learning in future lessons?
- What would you have added, either to the simulation or to the debriefing?

Connecting to Your Teaching

Reflecting on Your Practice

As you reflect on these questions, write down your responses or discuss them as a group.

- What preparation do students need to ensure success when doing a role-play or simulation?
- What topics in your curriculum lend themselves to teaching students about the distribution of resources locally, nationally, and worldwide?
- How would you address the sometimes-controversial topic of inequities in the distribution of resources?

Taking It Back to Your Classroom

- Select an important issue in your curriculum and ask students to research it. Then have them create and role-play a television newscast about it. Students can assume the roles of news anchor, special reporter, expert in the field, and "man on the street."
- Ask students to engage in a simulation related to world issues covered in your curriculum. The Population Resource Bureau provides current statistics, resource guides, and examples of simulations to help students better understand world issues. (See Resources.)
- Students can participate in a model United Nations (UN) program, taking the role of a diplomatic representative to the UN from one of the member nations. One activity is to simulate the UN Commission on Sustainable Development. (See Resources for more information.) Model UN programs can be conducted with as few as 15 students from a single classroom, or with thousands of students from classrooms around the world.

Resources

Print Resources for Students

Greenhaven Press Inc. Staff. *Are Global Resources Becoming More Scarce?* Pamphlets Series. San Diego, Calif.: Greenhaven Press, 1991.

Stefoff, Rebecca. *Overpopulation: Earth at Risk.* Broomall, Pa.: Chelsea House Publishers, 1992.

Print Resources for Teachers

Anderson, Charlotte C. with Susan K. Nicklas and Agnes R. Crawford. *Global Understandings: A Framework for Teaching and Learning.* Alexandria, Va.: Association for Supervision and Curriculum Development, 1994.

Kathuria, Ramdev P. *Method of Teaching Population Education.* Edmonton, Alberta: Commonwealth Publishers, 1991.

Ravid, Ruth. *Practical Statistics for Educators.* 2d ed. Lanham, Md.: University Press of America, 2000.

Razin, Assaf, and Efraim Sadka. *Population Economics.* Cambridge, Mass.: MIT Press, 1995.

Web Resources for Students

International Data Base: http://www.census.gov/ftp/pub/ipc/www/idbnew.html

The IDB data bank contains statistical tables, demographic charts, population pyramids, and other helpful research material.

National Geographic Online: http://www.nationalgeographic.com/gaw/pop/pop_58_student.html

The Green Spaces feature on National Geographic's Geography Awareness Week site offers a lesson in population and diversity.

Population Education: http://www.populationeducation.org/education/

This site focuses on population awareness education, featuring games, data libraries, and stories.

Population Resource Center: http://www.prcdc.org/summaries/changingnation.html

The PRC provides demographic information in its effort to promote the use of accurate data and statistical information.

Resources, cont'd.

Web Resources for Teachers

The American Forum for Global Education: http://www.globaled.org

This site offers teaching materials, publications, and a newsletter on global issues in education for teachers interested in an international perspective.

National Geographic Online: http://www.nationalgeographic.com/gaw/pop/pop_912_teacher.html

The Balancing Acts feature on National Geographic's Geography Awareness Week site offers an interactive lesson plan on population and human resources.

Population Reference Bureau: http://www.prb.org

The PRB site presents objective information on world population trends, including easily accessible data, activities, and publications.

United Nations: Cyber School Bus: http://www.un.org/Pubs/CyberSchoolBus/index.html

The UN's Global Teaching and Learning Project presents statistical data and news updates on each participating country.

Notes