



Geography Integrated Lesson Plan

Title: Learning About the United States' Population

Subjects: Social Studies, Math

Duration of lesson: Two 90 minute class periods (with possible extension activities)

Teacher: Sarah Jett

PURPOSE/OVERVIEW

The purpose of this lesson is to examine population demographics of the United States. Students will compare the population of the United States to the world population and compare populations between states. Students will learn how to read and create a population pyramid.

ESSENTIAL OR GUIDING QUESTION:

What is population density?

What physical and human features affect population density?

What is a population pyramid?

VOCABULARY:

-demography

-population density

-population pyramid

WEST VIRGINIA CONTENT STANDARDS

Social Studies

SS.O.06.04.02- use map tools (e.g., legends, keys, scales) to interpret information (e.g., climate, landforms, resources).

SS.O.06.04.03- locate and identify the continents, major climates, major bodies of water, natural resources and landforms and analyze the relationship of people with their environment regarding population demographics, settlement and trade.

SS.O.06.04.05- evaluate the effects of physical geography and the changing nature of the earth's surface on transportation, culture, economic activities and population density/distribution.

SS.O.06.04.06- interpret information on a population growth graph and a population pyramid (e.g., discuss the age of the population, growth potential, life expectancy) and apply it to explain the economics, education and movement of a selected region.

Math

M.O.6.5.1-collect, organize, display, read, interpret and analyze real-world data using appropriate graphs and tables (with and without technology).

M.O.6.3.6-use geometric representations to solve real-world problems.

M.O.6.3.7-plot polygons on coordinate grids, determine lengths and areas from the graph.

GEOGRAPHY STANDARDS

How to Analyze the Spatial Organization of People, Places, and Environments on Earth's Surface	<u>3</u>	1: The World in Spatial Terms
The Physical and Human Characteristics of Places	<u>4</u>	2: Places and Regions
The Characteristics, Distribution, and Migration of Human Population on Earth's Surface	<u>9</u>	4: Human Systems
How Physical Systems Affect Human Systems	<u>15</u>	5: Environment and Society

21ST CENTURY LEARNING SKILLS AND TECHNOLOGY TOOLS

21C.O.5-8.2.LS.1-Student engages in a critical thinking process that supports synthesis and conducts evaluations by applying comprehensive criteria.

21C.O.5-8.3.LS.4-Student demonstrates ethical behavior and works responsibly and collaboratively with others, in academic and social contexts, to accomplish both individual and team goals related to improved academic, extracurricular, and co-curricular performances.

MATERIALS: (include resources)

- Map Activity from http://homeschoolcreations.com/files/Mapping_US.pdf
- Laptop with internet access and projector
- Population Pyramids PowerPoint by Lina Trullinger (<http://www.slideshare.net/Intrullin/understanding-population-pyramids>)
- sample population pyramid (one can be taken from <http://www.census.gov/population/www/projections/statepyramid.html> or the 6th grade Social Studies textbook)
- population pyramids from <http://www.census.gov/population/www/projections/statepyramid.html> for concluding activity

MAP INTEGRATION:

- Map of the United States-http://homeschoolcreations.com/files/Mapping_US.pdf
Student atlas or textbook with map of the United States

PROCEDURE: (include activity sheets)

1. Students will start by completing a map activity to familiarize themselves with the basic geography of the United States (http://homeschoolcreations.com/files/Mapping_US.pdf).
2. The teacher will ask two rows from one side of the room to find a seat on the opposite side of the room. Which side is denser? If these were countries (India vs. Mongolia) or states (Montana vs. Florida) where would you rather live and why? What are the advantages and disadvantages of living in a densely populated area?
3. Discuss the definition of population density. What physical features in an area might affect population density? What human features will affect population density?
4. Discuss demography. What is demography? Why is it important for geographers to study?
5. Look at the US Census Bureau data for the World Population and the US Population and the “Pop Clock” for the United States (<http://www.census.gov/main/www/popclock.html>, <http://www.census.gov/population/www/popclockus.html>). Discuss the features on this web page with students (birth rate, death rate, immigration, etc.) to show a representation of natural population increase. Also look at the World Clock (<http://www.poodwaddle.com/clocks/worldclock>). Compare the United States with other countries.
6. Look at a sample population pyramid and discuss the key features of a population pyramid. Share

with students that like with any graph or chart, it is important to read the title and all the information on the graph.

7. View the slide show on <http://www.slideshare.net/Intrullin/understanding-population-pyramids>.

Discuss each slide as a class. At the end of the presentation, there are several sample population pyramids from cities around the United States. Make this into a sort of game to get students thinking about what population pyramids can tell us. Don't explain to them where the city is located or why the population looks the way it does, but let the students explain to you what they think the population pyramid says about the population in that place. Then discuss each pyramid as a class.

8. Allow students to work with a partner. Using the sample data at the end of the Power Point, students should draw a sample population pyramid (be sure to indicate this is not real data) to get a feel for drawing a population pyramid. Be sure to check each pair's pyramid and correct any mistakes. Check for correct labeling of age groups and a title.

9. Once students have the hang of drawing a basic population pyramid, tell them they will be creating a population pyramid based on real US Census Bureau data. Display or write the following chart on the board. Ask students to use the chart to create a population pyramid. (All numbers are in thousands and estimates from the US Census Bureau data.)

Age	M	F
0-19	217	207
20-44	289	281
45-64	260	332
65-85+	122	166

10. Ask students what they can tell about this place from the population pyramid. Ask students where they think this place is in the United States (This is data from the US Census Bureau about WV).

CONCLUSION/SUMMARY

As an extension activity, students can use the data from the US Census Bureau website to create more detailed population pyramids for other places in the United States. Pre-print population data from the U.S. Census Bureau website ("US Population Projections")

<http://www.census.gov/population/www/projections/statepyramid.html>. You can select whatever state you are interested in and select "PDF 1" for 2000 vs. 2010 data. Cut off the actual population pyramid and give students the data from the chart. Once students have created their pyramid, show them the printed population pyramid as a comparison. Students can check their progress to see if they graphed the

data correctly. A student may then switch his or her pyramid with a friend and ask him or her to interpret the data on the chart.

ASSESSMENT (include assessment)

As a final assessment, on another day give students a sample chart of population data. Ask students to create a population pyramid from the data.

Created by: Sherri Mitchem ad Danielle Spencer 2010

Mapping the United States



1. Find and label the United State's capital, Washington, DC, with a star.
2. Label the Pacific Ocean, the Atlantic Ocean, and the Arctic Ocean and shade them blue.
3. Label the Bering Sea, the Gulf of Mexico and the Gulf of Alaska and shade them blue.
4. Find and label Canada and color it red.
5. Find and label Mexico and color it green.
6. Find and label the Bahamas.
7. Find and label Cuba.
8. Trace the path of the Mississippi River and label it.
9. Trace the path of the Colorado River and label it.
10. Trace the path of the Ohio River and label it.
11. Shade the area of the Rocky Mountains and the Appalachian Mountains.
12. If you live in the US, color the state that you live in yellow.