

Lesson Plans: SS WGeo LPQ3 027 Population Demographics in modern African nations

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Grade Level : Grade 9,Grade 9-12

Subject : Social Studies - High

Standards/Assessed Benchmarks: Florida STATE FL Social Studies Standard (2008)

Grades: 9-12

Florida Sunshine State Standards

Geography

1: Understand how to use maps and other geographic representations, tools, and technology to report information.

SS.912.G.1.1 Design maps using a variety of technologies based on descriptive data to explain physical and cultural attributes of major world regions.

4: Understand the characteristics, distribution, and migration of human populations.

SS.912.G.4.1 Interpret population growth and other demographic data for any given place.

SS.912.G.4.2 Use geographic terms and tools to analyze the push/pull factors contributing to human migration within and among places.

SS.912.G.4.5 Use geographic terms and tools to analyze case studies of the development, growth, and changing nature of cities and urban centers.

SS.912.G.4.6 Use geographic terms and tools to predict the effect of a change in a specific characteristic of a place on the human population of that place.

5: Understand how human actions can impact the environment.

SS.912.G.5.2 Analyze case studies of how changes in the physical environment of a place can increase or diminish its capacity to support human activity.

SS.912.G.5.3 Analyze case studies of the effects of human use of technology on the environment of places.

6: Understand how to apply geography to interpret the past and present and plan for the future.

SS.912.G.6.1 Use appropriate maps and other graphic representations to analyze geographic problems and changes over time.

Grades: 9-12

Florida Sunshine State Standards

World History

8: Recognize significant events and people from the post World War II and Cold War eras.

SS.912.W.8.7 Compare post-war independence movements in African, Asian, and Caribbean countries.

Description/Abstract of Lesson: Students will understand how to create and interpret choropleth maps. Students will convert data from tables to graphic forms, create and interpret population pyramids using data from modern African countries.

Essential Question-Scope & Sequence: **What is geography? Why has Sub-Saharan Africa continued to be underdeveloped?**

Technology Connections and Teacher Materials: Demographics: creating pop pyramid & choropleth maps

Technology Connections and Student Materials: [Population pyramid: teacher samples](#)
[World Countries : Age/Sex data for 35 countries](#)
[Creating choropleth maps](#)

Duration : 3 Days

Vocabulary: **demographics** - the study of the characteristics of specific population groups **carrying capacity** - number of a species of plant or animal that can live off the resources of an identified area. Humans are the only species that can expand the carrying capacity to a certain point. **LDC** (less developed country) - countries that base their economies on mostly subsistence agriculture. Have relatively low standards of living and low per capita incomes. **MDC** (more developed country) - countries that base their economies on manufacturing and service industries. have relatively high standards of living in cash economies. **green revolution** - name given to increased food production due to use of pesticides, fertilizers, and modern farming techniques such as crop rotation and contour plowing. **birth rate** - (CBR) number of live births per 1,000 population **death rate** - (CDR) number of total deaths per 1,000 population **rate of**

natural increase - CBR-CDR= natural increase per 1,000 population. This number does not account for immigration or emigration. **per cent population increase** - CBR-CDR divided by 10 (to get a percentage), then divided by total population. **infant mortality rate** - (IMR) number of babies that die before reaching 1 year of age per 1,000 live births.

Steps to Deliver Initial Instruction: Introduce the topic of population growth by showing segment 7 of <http://www.unitedstreaming.com/search/assetDetail.cfm?guidAssetID=DDDE360B-FFD8-47C2-9A97-5532AD5D2E30>. If not available, you can summarize the following introductory essay about population growth. In either case, students should be drawn into a discussion about the effects of continued population growth and our quality of life. Be sure to discuss the impact of growth on LDC and MDC. Ask students why a family in an LDC would tend to have more babies while a family in an MDC would not. Also, how would each family use resources to live. The rapid and dramatic rise in world population that has occurred over the last few hundred years. Between 1959 and 2000, the world's population increased from 2.5 billion to 6.1 billion people. According to United Nations projections, the world population will be between 7.9 billion and 10.9 billion by 2050. Most of the growth is currently taking place in the developing world, where rates of natural increase are much higher than in industrialized countries. Concern that this might lead to overpopulation has led some countries to adopt population control policies. However, since people in developing countries consume far less, especially of non-renewable resources, per head of population than people in industrialized countries, it has been argued that the West should set an example in population control instead of giving, for example, universal child benefit. Too many people for the resources available in an area (such as food, land, and water). The consequences were first set out by English economist Thomas Malthus at the start of the population explosion. Although there is often a link between overpopulation and population density, high densities do not always result in overpopulation. In many countries, resources are plentiful and the infrastructure and technology are well developed. This means that a large number of people can be supported by a small area of land. In some countries, such as Bangladesh, Ethiopia, and Brazil, insufficient food, minerals, and energy, and unequal income distribution result in poverty and often migration in search of better living conditions. Here even low population densities may amount to overpopulation. Overpopulation may also result from a decrease in resources or an increase in population or a combination of both.

Guided Practice with Feedback: If you don't have a projector, show students choropleth maps from an atlas and the same type of data in spreadsheet form. Ask them which is easier to understand and why. This will introduce the reason behind creating graphic representations of tabular data. Emphasize that creating a graphic image of the data allows us to more easily see patterns developing and easier to compare and contrast. With a projection device, show the [Demographics: creating pop pyramid & choropleth maps](#) powerpoint presentation. Break into 2 parts, first choropleth maps in groups and then population pyramids individually.

Independent Practice: Distribute a population pyramid data sheet to each student. [World Countries : Age/Sex data for 35 countries](#). Follow the instructions on the sheet to create a population pyramid for the selected country. Instructions: 1. add together population numbers for each of the 2 age groups 2. divide this number by the total population for that country to find percent of total population 3. create scale for population pyramid based on the highest percentage numbers. Find the greatest value and divide into 3 equal parts. Label population pyramid from center line out on right and left. 4. transfer data to population pyramid form, male on left and female on right. 5. After population pyramid is completed, use a ruler to match it with the type 1 - 4 models. 6. Locate and develop possible reasons for any asymmetry. Show students the [Population pyramid: teacher samples](#)

Differentiated Instruction/Small Groups: Divide class into 6 groups. Each group receives an outline map of a region of Africa and the corresponding regional population and area data sheet. [Creating choropleth maps](#) 1. Each group compute population density (divide population by area to get people per sq. km. 2. rank countries from lowest to greatest values 3. divide ranked list into 5 groups based on either equal size or equal interval 4. create a key on the map denoting group population density range 5. label countries on map 6. shade countries according to key.

ESE/ESOL Accommodations & Strategies: Review vocabulary terms with class before beginning exercises. Composition of groups should include ESE and ESOL students. Students should be encouraged to actively participate in group discussion.

Lesson Spot check arithmetic on population pyramid worksheets. Graphic pyramids should resemble the identified stage of demographic transition (from Population pyramid worksheets answer key). Each student should summarize their population pyramid for the class. Each group should summarize their population density choropleth map for the class.

Assessment with Clear & Compelling: Students research to find out more demographic data about their identified country. The data should be used to support the student's view of that country's stage of demographic transition. Students could describe that country's demography in 25 years and 50 years.

Creator : HS SS Content Team

File Attachments: Africa regions pop density WS.doc

Population Demographics.ppt

Population pyramid database.doc

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