Population Growth Lesson 2
Population Growth Rate

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DATE LESSON TO BE TAUGHT:
GRADE LEVEL: Algebra
SOURCE OF THE LESSON:
http://www.k12science.org/curriculum/popgrowthproj/index.html

TEKS:

CONCEPT(S)
OBJECTIVES (LEARNER OUTCOMES): The student will be able to
1- Determine the best representation for displaying rate of change of a population
2- Determine the growth rate of U.S. population using historical data
3- Compare calculated growth rates to those estimated by U.S. Census Bureau
4- Identify factors that contribute to growth rate
5- Determine current and future growth patterns of U.S. population
6- Make predictions of population growth using population histograms
7- Identify countries with different growth rates based on the shapes of their population histograms
8- Make connections between population growth rate and industrial development of a country

MATERIALS LIST and ADVANCED PREPARATIONS:
A computer for every group of 2-3 students

SAFETY:
No foreseen safety issuses

SUPPLEMENTARY MATERIALS:

All supplementary materials are online at
http://www.k12science.org/curriculum/popgrowthproj/activities.html
or the mirror site
http://www.k12science2.org/curriculum/popgrowthproj/activities.html

Engagement (5 min)

What the Teacher Will Do	Eliciting Questions	Student Responses
Will review the previous activities with the students For the next two days we will explore Rate of Change more and look at US population Growth rates.	Last time what did we discover about population growth?	We learned what affects population growth rates and we have an explicit formula that describes the growth rate in terms of birth rate, death rate, immigration and emigration.

Exploration (90 min)

What the Teacher Will Do	Eliciting Questions	Student Responses
Instruct students to start Activity #3, #4, and #5. After the Completion of each Activity Students will post an entry onto their Blog.		Students will complete activities #3, #4, and #5 and the blog entries for each activity.

Explanation/ Elaboration (10 minutes)

What the Teacher Will Do	Eliciting Questions	Student Responses
Lead a discussion about the previous 3 activities.	What is a population rate of change?	How much the population changed in a year
	What is a population growth rate?	This is a percentage change in the population
	What does a histogram represent?	Histograms show the frequency of a category.
	What do you notice about the age group differences in the 2005 and 2025 population histograms?	The baby boom population expands all of the 60+ age groups.

Evaluation (30-45 min)

What the Teacher Will Do	Eliciting Questions	Student Responses
Student blog entries can be used to evaluate their work. Mainly look for Bar chart, line chart, and scatter plot of population every 10 years from 1790 up to 1990		Students Post a blog entry about each completed activity. Posting any further questions they may have or any opinions they may have about world population change