**Power of the Pyramids**

**Objective:** To develop an understanding of how to interpret age pyramids and understand the relationship between age structure and human population growth.

**Background:** Population growth is affected by age structure - the number of individuals in different age groups - as well as by the numbers of births and deaths. Age structure is usually illustrated by an age pyramid, a graph in which horizontal bars represent the percentage of the population in each age group. Males are shown on the left and females on the right. The ages (or in some cases, the years of birth) for each bar are listed along the vertical axis of the graph, usually in five-year intervals. Each age group is called a **cohort**. The longer a bar is, the greater the proportion of individuals in that age group.

Age pyramids are useful for tracing the history of a population and for projecting future population trends. An age pyramid with more long bars for the younger age groups would indicate a growing population; when these large numbers of young begin to reproduce; they will add even more offspring to the population than did the older age groups.

**Part 1**-**Background:**

**In your notes:**

[**https://www.census.gov/popclock/**](https://www.census.gov/popclock/)

1. **What is the current world population?**
2. **What is the current population of the United States?**
3. **Based on the data from the site, could you calculate the current birthrate and deathrate of the U.S? Try it☺**
4. **What is the growth rate of the U.S. Population according to the website data?**
5. **Look at the Population Pyramid for the United States. Scroll through time and watch how the graphic changes. Describe in your own words how the U.S. population has changed over the timeframe shown on this graphic.**
6. **What is the most populous state? What is the state with the highest density? What is the difference between these measurements?**
7. **Research Assigned Country : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**a. Where is your country located, geographically?**

**b. Is your country considered a developing or developed nation? Cite your source.**

**c. What is its birth rate?**

**d. What is its death rate?**

**e. Make a prediction about the general shape of this country’s age structure graphic.**

**Part 2**-**Procedure:**

1. Pick up the 2015 data for your assigned country.
2. Calculate the percentage of each gender for each age group out of the entire population. Record this on the sheet.
3. **Create an age structure pyramid for your assigned country/year. Graph paper is located in ART beside Tori.**
4. Make sure you title and label axes appropriately on your graph. There is an example x and y axes on the front table.

**3. Answer the questions:**

1. Which gender has the higher population in the oldest age group?

2. Does your country look like a pyramid? Explain.

3. What can you tell about your country's growth rate by looking at your graph?

4. Determine the percentage of the population that has yet to reach childbearing age. What do these

numbers say about the prospects for future growth?

5. Does your country have a baby boom in it? (a bulge somewhere in the middle) What could account for this?

6. What percentage of the population is above age 65?

7. If you had a business and you wanted to capitalize on your information about the population age distribution, what

would you sell?

8. Refer to your research questions #7b. From your data and graph/histogram, would you agree with the description of

your assigned country as a developed or developing nation? Explain.