

Introductory Spatial Analysis Activity

Enduring Understandings:

- Geography, as a field of inquiry, looks at the world from a spatial perspective.
- Geography offers a set of concepts, skills, and tools that facilitate critical thinking and problem solving.
- Geographical skills provide a foundation for analyzing world patterns and processes.

Objective (SWBAT):

- Explain the importance of geography as a field of study.
- Use spatial thinking to analyze the human organization of space.
- Use and interpret maps.
- Use concepts such as space, place, and region to examine geographic issues.
- Interpret patterns and processes at different scales.
- Define region as a concept, identify world regions, and understand regionalization processes.

Materials Needed:

- Blank outline map of World
- Colored Pencils
- 2016 World Population Data Sheet
 - o – <https://www.prb.org/2016-world-population-data-sheet/>
 - o – www.aaperales.com/JFK/hug/

Directions:

1. With your partner, choose one of the following demographic variables using the World Population Data Sheet and map the world distribution of that indicator on a world country outline map:
 - a. Infant Mortality Rate
 - b. Birth Rate
 - c. Death Rate
 - d. Total Fertility Rate
 - e. Percent 65 and Over
 - f. Percent under age 5
 - g. Per Capita GNI PPP
 - h. Life Expectancy (Male or Female)
2. Create a **choropleth map**: Country Outline Map
Determine the mapping categories by finding the range of values for that indicator. Determine the number of categories to be used for your map and the interval of each category.
 - a. After choosing the variable, determine the highest and lowest values for that measure.
 - b. Subtract these two numbers in order to calculate the range for that data.
 - c. Divide the range by the number of mapping categories planned for the map. Four to five categories will be adequate for most measures. The number produced by the division will indicate how many numbers to include in each category interval.
 - d. Always construct categories so that the numbers in one category do not overlap those in adjacent categories.
 - e. Arrange a color code or shading pattern for each category. Color patterns should increase from light to dark, from lowest to highest category.
 - f. Determine the proper mapping category for each country and color or shade the country on an outline map, title the map, place a legend on the page, and indicate the source.
3. Interpret the Map.
 - a. After the map has been drawn, discuss and answer the following questions:
 - i. Describe the patterns observed on the map.
 - ii. What assumptions can you make that would lead to this distribution?
 - iii. Why might this not give you an accurate representation of each country?

Once you and your partner have made your observations and completed your discussion, attach your map to the chart paper and write down your answers. We will then be completing a gallery walk where you and your partner will be analyzing other groups maps and adding any observations, assumptions, and further feedback. Once the gallery walk is complete we will share our observations as a class.

Name: _____ Date: _____ Period: _____

