TEKS, ELPS, and CCRS

TEKS:

**WGS.21C** Create and interpret different types of maps to answer geographic questions, infer relationships, and analyze change.

**WGS.22A** Design/draw and interpret appropriate graphics such as maps, diagrams, tables, and graphs to communicate geographic features, distributions, and relationships.

**WGS.22C** Use geographic terminology correctly.

ELPS:

- ELPS C.2i Demonstrate listening comprehension of increasingly complex spoken English by following directions, retelling or summarizing spoken messages, responding to questions and requests, collaborating with peers, and taking notes commensurate with content and grade-level needs.
- ELPS C.5b Write using newly acquired basic vocabulary and content-based grade-level vocabulary;
- ELPS C.3g Express opinions, ideas, and feelings ranging from communicating single words and short phrases to participating in extended discussions on a variety of social and grade-appropriate academic topics;
- ELPS C.4d Use pre-reading supports such as graphic organizers, illustrations, and pre-taught topic-related vocabulary and other pre-reading activities to enhance comprehension of written text;

CCRS:

- CCRS 1.A1 Use the tools and concepts of geography appropriately and accurately.
- CCRS 4.B3 Gather, organize, and display the results of data and research.

Essential Understandings and Guiding Questions

**Essential Understanding:**
• Graphic representations of information and data [maps, graphs, charts...] often express relationships and patterns in the physical and human geography of a place/region.

Guiding Question:
1. What regional patterns do you observe when comparing charts, maps, and population data?
2. What can you determine about the impact of population data on the ESPN characteristics of a region?

DO NOW
Have students complete the Learning Targets Self-Assessment for today's lesson on Interpreting Population Data.  
WGS Learning Targets Unit 4

Engage
Note to Teacher:
To prepare you will need three sheets of newspaper (or chart paper).

Say:
1. I have placed three sheets of newspaper (or chart paper) on the floor representing the three countries of the United States, India, and Bangladesh.
2. Can I have 15 volunteers to come to the front of the classroom?
3. Tell 1 student to stand on the first sheet of paper. Tell the class this student represents the population per square kilometer of arable land in the United States.
4. Tell 4 volunteers to try to stand on the second sheet of paper...this group represents the population density per square kilometer of arable land of India.
5. Now would the remaining 10 volunteers try to stand on the last sheet of paper?
6. Tell the class if these 10 people on the third sheet of paper represent the population density per kilometer or arable land in Bangladesh – 2,089 people.

Ask: How might these population density statistics affect the ESPN lifestyle in each country?
NEW LEARNING

Say: The population growth in South and East Asia has contributed to economic, social, political and environmental issues in the region. The governments of South Asia have been working for years to find a solution to the problem.

Ask: What problems might over population cause?

Some possible answers are:

- Many citizens lack basic necessities, food, clothing, and shelter.
- There is widespread poverty and illiteracy.
- Poor sanitation that has led to outbreaks of disease.
- Shortages of government services.

Note to Teacher:

Locate China on a map of the world. Compare the size of China to that of the U.S. (about the same) China has always considered itself to be the center of the world, the center of influence and importance. Maps in China have East Asia centered on the map. To prepare you will need two sheets of newspaper (or chart paper).

Use an experiential strategy to illustrate China’s population compared to the U.S.

- Place two sheets of newsprint on the floor...label one China and the other the U.S.
- Call one student up to stand on the newspaper labeled the U.S - Tell students this represents population and population density in the United States. [population slightly over 321 million in mid-2015]
- Ask students to speculate how many people will stand on the sheet labeled China [the 2016 population of China was 1.372 billion – more than four times that of the U.S.]...Call one student up at a time and have them stand on the second
sheet of paper until you have 4 students attempting to stand on the newspaper. Now have those four people attempt to move into a square marked on ¼ of the paper. This reflects population pressures in China since most of the people live in approximately ¼ of the land.

- Display or refer students to a physical map of China and have them suggest how the physical geography of China affects settlement patterns.

**Say:** Why does China use only ¼ of the land?

Discuss the potential problems and implications of the Chinese population explosion on world politics and economics, given their political and economic background in both communism, socialism, and emerging capitalism.

### Guided Practice

**Say:** Access, download, and save for reference during the year the *WGS World Population Data Chart 2015 Unit 4* in the Hub or the Population Reference Bureau's online Population Data Sheet. Also download and save the *WGS Interpreting Population Data Chart Unit 4* to use to summarize data.

**Model the process:** Show students the category labels at the top of the chart (p. 11) and use the World Statistics to illustrate how to find the data set and record the data for the 6 population categories indicated at the top of the charts. The categories to include: Population 2015, Population Mid-2030, Population Mid-2050, GNI Per Capita ($US), Percent Urban, and Population Per Sq. Kilometer of Arable Land. Compare the world statistics by posing questions. As you point out each statistic, students should enter it into their own personal chart as a means of comparison between their assigned region and the rest of the world.

**Ask:**

1. How does the World Population compare to the More Developed (Countries) Total Population?
2. How does the World Population compare to the Less Developed (Countries) population?
3. What conclusion can you draw from this data?
4. How does the percent urban compare in both categories? What might that indicate?
5. How does the Population per Sq. Kilometer compare? What might that mean?

**Independent Practice**

**Say:**

1. Use the [WGS World Population Data Sheet 2015 Unit 4](#) or the Population Reference Bureau's online [Population Data Sheet](#) to find your assigned region in the data sets. Each student will complete the [WGS Interpreting Population Data Chart Unit 4](#) to record regional and selected country data for 6 categories: Population 2015, Population Mid-2030, Population Mid-2050, GNI Per Capita ($US), Percent Urban, and Population Per Sq. Kilometer of Arable Land.
2. Record data for the assigned region as whole and for three important countries within the region using the handout.

**Say:** When you complete your data chart:

1. Remember to complete the sentences at the bottom of the chart.
2. Get together with other members of your regional group to compare the countries you each chose as your data points and discuss the last two sentences from each person's work.

**Close/Assess**

**Say:** Post the completed charts on the Class Discussion board using your name and region name as the title of the post.

**Assign:** For homework, access the data charts for two regions other than your own and comment in a sentence about your reactions to the data chart.

**Say:** Revisit the Learning Targets and complete the post-assessment, citing evidence in the last column.