

Social Justice Lesson – Countries and Standards of Living (adapted from Everyday Math)
Grade 4
Spring 2008

Learning Objectives:

The student will be able to –

1. Represent data in a graphical representation.
2. Extract information from tables and graphs.
3. Use proportional reasoning and estimation to make sense of data.

Language Objectives:

The student will be able to –

1. Explain the meaning of “items per 1,000 people.”
2. Provide basic descriptions of “half as many,” “patterns,” and “scale” using mathematical language.
3. Discuss why certain countries have higher standards of livings than other countries.

Materials:

1. Student Reference book p. 243 (Literacy and Standard of Living Data)
2. Graph paper
3. Colored pencils
4. Math message warm-up
5. Region questions (North America & South America, Europe, Africa, Asia)
6. Think Cards

Initiation:

Math message- Match the country, continent, capital and population, see below. (approx. 5 min)

Procedures:

1. Go over math message.
2. Go over learning/language objectives and explain that we will be looking at a data set (p. 243) that has information about lots of different countries. Discuss data set as whole-class. (approx. 10 min)
 - a. Talk about different continents. Examples of countries in continents.
 - b. Televisions, radios, telephones, and cars per 1,000 people. What does that mean? Does that imply the country only has 1,000 people?
 - c. Highlight the difference of # of cars per 1,000 people in Ethiopia (1) and the United States (476). Brainstorm why there might be such a difference.
3. Break students into six groups. Each group spends approximately 10-12 minutes at a station, with teacher guiding and monitoring as necessary. (total approx. 35 min)
 - a. Africa
 - b. Europe (2 stations)
 - c. North America and South America (2 stations)
 - d. Asia

Logistics: Each group will go to three different stations. Half of groups will go to a, b, c. Other groups will go to b, c, d. Students complete the station questions in small groups, but they each must turn in a worksheet.

Africa

- * Create bar graph (using p. 243)
- * Graph follow-up questions
- * Think questions

Europe

- * Putting information into tables (using p. 243)
- * Table follow-up questions
- * Think questions

North America and South America

- * Comparison questions
- * Think questions

Asia

- * Create bar graph (using p. 243)
- * Graph follow-up questions
- * Think questions

Closure:

Whole-class Discussion: What did you learn? Why do you think some countries have so many more cars per 1,000 people than other countries? Are there examples of this? Is it costly to live in certain countries? How do you know? (approx. 10-15 min)

Assessments:

1. whole-class discussion
2. worksheets from stations
3. observations & small-group discussions

Name: _____

Date: _____

Math Message Warm-Up

Around the World

	Continent	Capital	Population of Country
Peru			
Italy			
Kenya			

Do your best to use the word bank to fill in the table above.

Nairobi	59 million	Europe	South America	28 million
Rome	37 million	Lima	Africa	

Name: _____

Date: _____

Math Message Warm-Up

Around the World

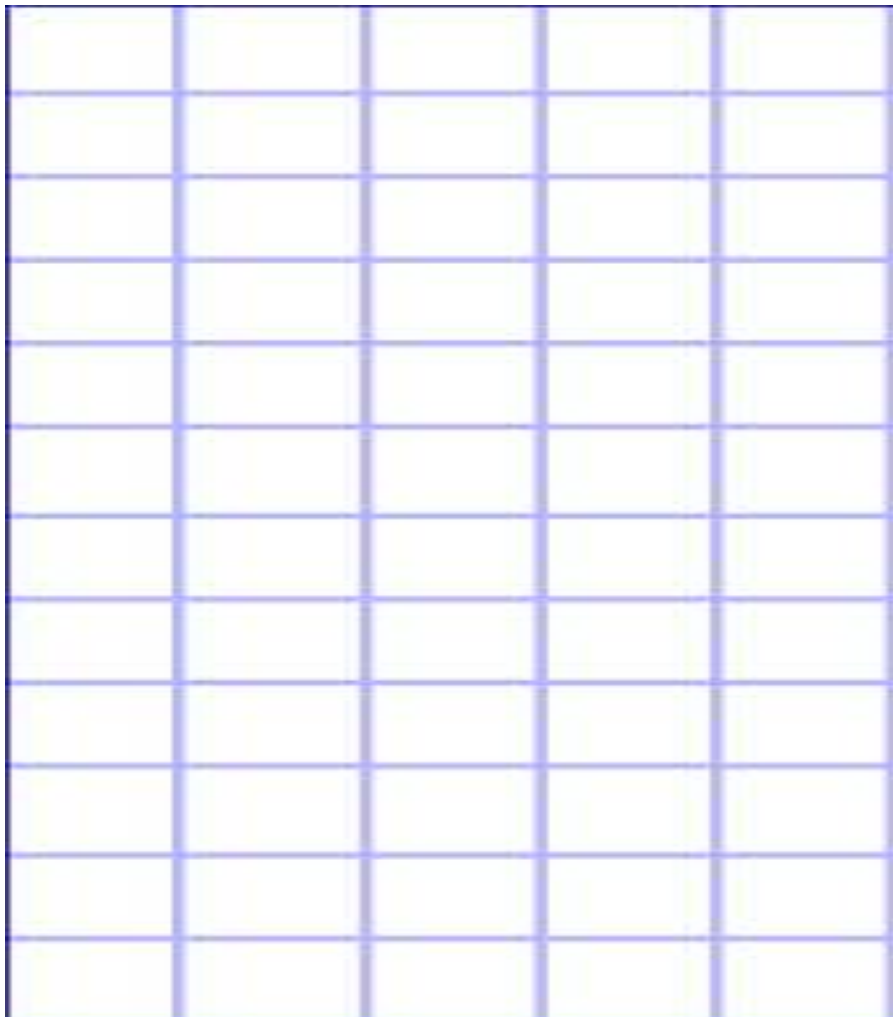
	Continent	Capital	Population of Country
Peru			
Italy			
Kenya			

Do your best to use the word bank to fill in the table above.

Nairobi	59 million	Europe	South America	28 million
Rome	37 million	Lima	Africa	

Name: _____

Graph Title: Cars per 1,000 People in African Countries





This is a typical house made by the Ndebele people in South Africa. It is round and very strong. The walls are made from a thick and hard mud-mixture like cement and the roof is a very thick grass-thatch. It stays cool in the summer. (From pbskids.org)

Africa Graph Questions

Name: _____

Directions: Use your graph to help you answer the questions. You may work in small groups but everyone must turn in these questions and a graph.

1a. Looking at your graph, what African country has the highest number of cars per 1,000 people? _____

1b. Decide if this number is "low." Explain your thinking.

2. What **scale** did you use for your graph? Why?

4. Write down one thing that your graph shows.

Name: _____



Europe

Directions: Use page 243 from your resource book to fill in the tables and answer the questions. You may work in small groups but everyone must turn in this worksheet.

	Highest number of televisions per 1,000 people	Highest number of radios per 1,000 people	Highest number of telephones per 1,000 people	Highest number of cars per 1,000 people
European Country				

	Lowest number of televisions per 1,000 people	Lowest number of radios per 1,000 people	Lowest number of telephones per 1,000 people	Lowest number of cars per 1,000 people
European Country				

1. Describe any **patterns** you notice from the tables above.

2. Explain if this statement is true:
Greece has about **half as many** cars per 1,000 people as Norway.

3. The United Kingdom has 1,194 radios per 1,000 people. Explain how this is possible.

Name: _____

NORTH AMERICA & SOUTH AMERICA

Directions: You may work in small groups to answer the following questions, but everyone must turn in this worksheet.

1. **About** how many more cars per 1,000 people does the United States have than Peru? Show your work.

2. **About** how many more televisions per 1,000 people does Jamaica have than Ecuador? Show your work.

3. Canada has 429 cars per 1,000 people and Brazil has 81 cars per 1,000 people. Why do you think Canada has so many more cars per 1,000 people than Brazil does?

4. Look at the countries listed in regions 3 and 5 in your resource book (South America and North America). Using information from the resource book, what country would be the best to live in? Explain your thinking.



Patagonia, Argentina in South America. The *Patagonia Volunteer Program* develops projects to help protect the environment.



Rural Tibet located in China. The Tibetan countryside is one of the most beautiful areas of China because it has stunning mountains, monasteries and holy lakes. Unfortunately, rural Tibet is also among the poorest areas of China with lower incomes than anywhere else in the country. (from picturechina.net)

Asia Graph Questions

Name: _____

Directions: Use your graph to help you answer the questions. You may work in small groups but everyone must turn in these questions and a graph.

1a. Looking at your graph, what Asian country has the highest number of cars per 1,000 people? _____

1b. Decide if this number is "low." Explain your thinking.

2. What **scale** did you use for your graph? Why?

5. Write down one thing that your graph shows.
