As a class, choose a variable you wish to study that helps you describe your class. Choose from those variables you listed before. Collect the data and organize it in a class data table.

**Graph**

Use *Centimeter Graph Paper* to graph the data. Be sure to title your graph and label the axes.

**Explore**

1. **A.** What variable is on the horizontal axis (←→) of your graph?
   **B.** What are the values for that variable listed on your graph?
2. What variable is on the vertical axis (↑↓) of your graph?
3. **A.** Which bar is the tallest on your graph?
   **B.** What does the tallest bar tell you?
4. **A.** Which bar is the shortest on your graph?
   **B.** What does the shortest bar tell you?
5. What else does your graph tell you about your class?
6. **A.** Look back at Room 204's graph. Which variable did they graph on the horizontal axis?
   **B.** What are the values for that variable shown on the graph?
   **C.** Which variable did they graph on the vertical axis?
7. What does the tallest bar on their graph tell you?
8. How many more students prefer to read than play games?

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### Questions 1–8 (SG p. 5)

*The answers to ***Questions 1–5*** are based on the sample data tables and graph in Figures 2–4 in Lesson 1. Answers will vary depending on your class data.

1. **A.** Eye Color
   **B.** Hazel, Brown, Green, Blue
2. Number of Students
3. **A.** Brown
   **B.** Brown is the most common eye color in Room 204.
4. **A.** Blue
   **B.** Blue is the least common eye color in Room 204.
5. Answers will vary. Brown is the most common eye color. The other three colors together occur almost the same number of times as brown in Room 204. Five more students have brown eyes than hazel eyes.
6. **A.** Main Interest
   **B.** Animals, Music, Reading, Outdoors, Games, Sports
   **C.** Number of Students
7. 8 students in the class have a main interest in sports.
8. 4 students

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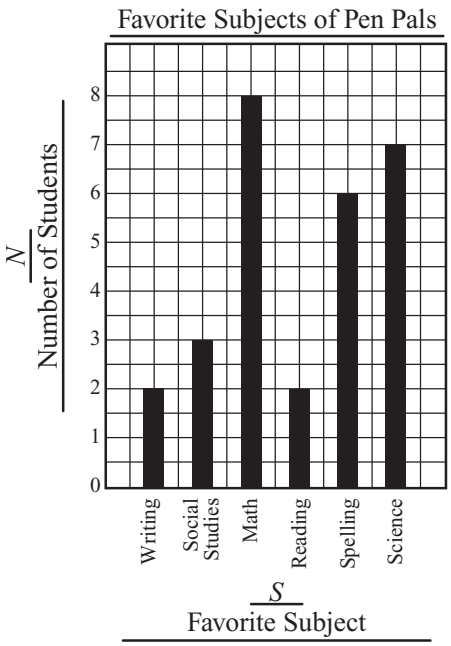
***Answers and/or discussion are included in the lesson.**

## Student Guide

**9.**




**10. A.** Favorite Subject

**B.** Writing, Social Studies, Math, Reading, Spelling, Science

**C.** Number of Students

**11. A.** Math

**B.** Writing and Reading

**C.** Answers will vary.

**D.** Answers will vary.

**12.** 28 students; add up the number of students in all.

### Homework (SG p. 7)

### Questions 1–5

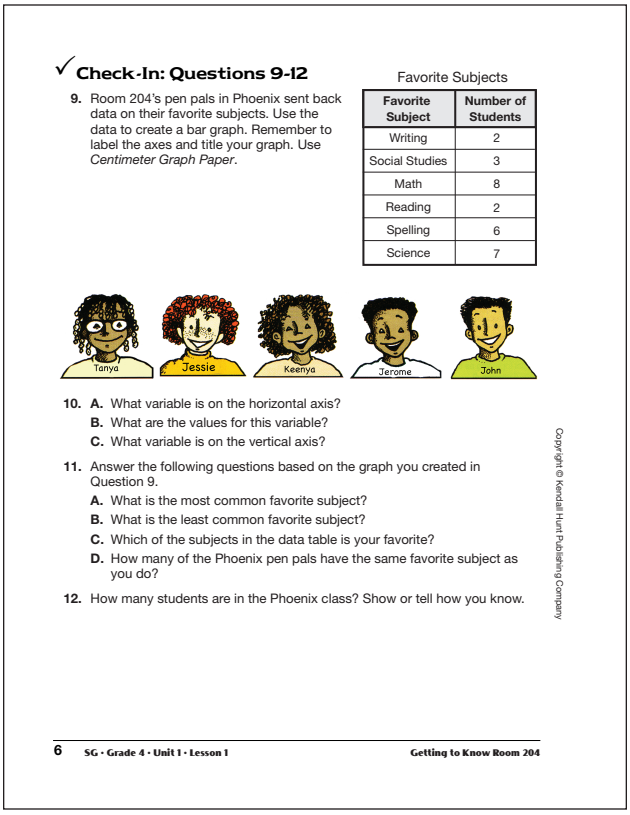
**1.** Primary Language Spoken

**2.** The tallest bar denotes that the most common primary language spoken in Room 204 is English.

**3.** The shortest bars denote the least common languages spoken in Room 204. These are Romanian, Hebrew, Greek, and Gujarati.

**4.** 4 students

**5.** Answers will vary. Room 204 has a mix of nationalities and native languages. English is the most common, followed by Spanish. Each of the other languages is spoken by only 1 or 2 students.



✓ **Check-In: Questions 9-12**

**9.** Room 204's pen pals in Phoenix sent back data on their favorite subjects. Use the data to create a bar graph. Remember to label the axes and title your graph. Use *Centimeter Graph Paper*.

Favorite Subjects

| Favorite Subject | Number of Students |
|---|---|
| Writing | 2 |
| Social Studies | 3 |
| Math | 8 |
| Reading | 2 |
| Spelling | 6 |
| Science | 7 |

Tanya Jessie Keenya Jerome John

**10. A.** What variable is on the horizontal axis?

**B.** What are the values for this variable?

**C.** What variable is on the vertical axis?

**11.** Answer the following questions based on the graph you created in Question 9.

**A.** What is the most common favorite subject?

**B.** What is the least common favorite subject?

**C.** Which of the subjects in the data table is your favorite?

**D.** How many of the Phoenix pen pals have the same favorite subject as you do?

**12.** How many students are in the Phoenix class? Show or tell how you know.

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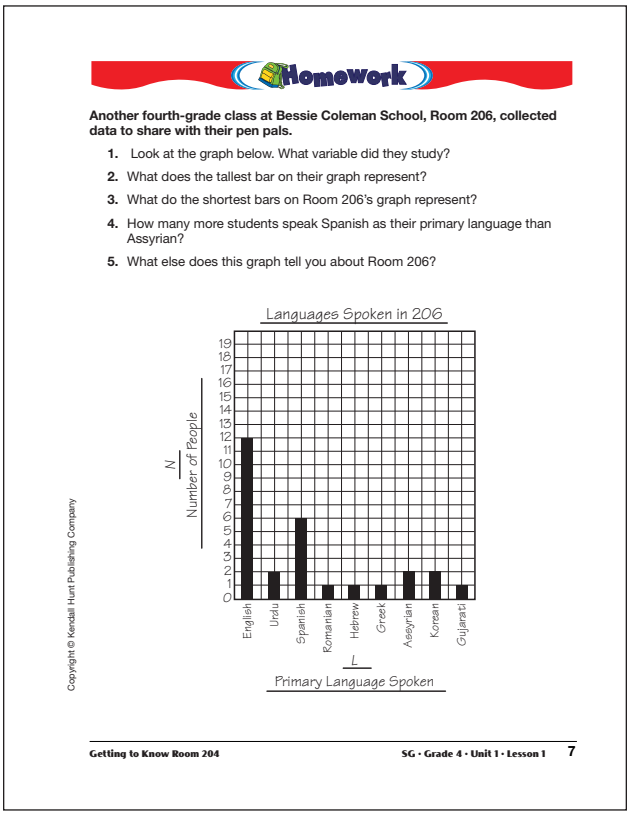

Homework

**Another fourth-grade class at Bessie Coleman School, Room 206, collected data to share with their pen pals.**

**1.** Look at the graph below. What variable did they study?

**2.** What does the tallest bar on their graph represent?

**3.** What do the shortest bars on Room 206's graph represent?

**4.** How many more students speak Spanish as their primary language than Assyrian?

**5.** What else does this graph tell you about Room 206?

Languages Spoken in 206

N
Number of People

English Urdu Spanish Romanian Hebrew Greek Assyrian Korean Gujarati

L
Primary Language Spoken

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