Name_____

Dear Family,

In this chapter, your student will use statistical measures to compare populations and identify biased samples. Statistics can be used to influence the way we think about information. Conclusions based on biased samples may be inaccurate, so it is important that students learn to be critical readers of statistics.

Spend some time with your student reading a newspaper or watching the news. Look for a statistic that you can evaluate with your student. Here are some questions you can ask your student about the information.

- Is the sample biased or unbiased? Was a part of the population favored? Who might have been left out? What effect could including them have on the results?

- What conclusions about the general population does this statistical information make? Are the conclusions valid?

- Look for articles that compare different groups of people. Talk about how the data was sampled. How might sampling by phone give different results than in-person interviews? How might sampling people who live in cities differ from sampling people who live in rural areas?

Discuss other situations where taking a sample of a population is useful for making conclusions about the population. Think of political issues that are relevant to your community. How would changing the people you ask about this issue change your results? What if you only ask people of a certain age?

Encourage your student to always read statistics carefully and consider how the data was collected.

Have fun drawing your own conclusions!

Lesson	Learning Target	Success Criteria
7.1 Samples and Populations	Understand how to use random samples to make conclusions about a population.	• I can explain why a sample is biased or unbiased. • I can explain why conclusions made from a biased sample may not be valid. • I can use an unbiased sample to make a conclusion about a population.
7.2 Using Random Samples to Describe Populations	Understand variability in samples of a population.	• I can use multiple random samples to make conclusions about a population. • I can use multiple random samples to examine variation in estimates.
7.3 Comparing Populations	Compare populations using measures of center and variation.	• I can find the measures of center and variation of a data set. • I can describe the visual overlap of two data distributions numerically. • I can determine whether there is a significant difference in the measures of center of two data sets.
7.4 Using Random Samples to Compare Populations	Use random samples to compare populations.	• I can compare random samples using measures of center and variation. • I can recognize whether random samples are likely to be representative of a population. • I can compare populations using multiple random samples.