## Chapter <br> 1

Dear Family,
In this chapter, your student will study different forms of statistical measures. One of the most common statistical measures is finding the mean of a set of data. Another word for mean is average. Think about ways you use the word average outside of the classroom. Consider the examples below before brainstorming your own ideas.

Have you ever said, "today is an average day"? What does that mean? You are probably comparing that particular day to a day that went really great or maybe to a day that did not turn out so good. So, what determines whether a day is good, average, or bad? Do you think your average day would be the same as a sibling or a parent? Spend some time thinking about the difference between a good, average, and bad day.

How about temperatures? How does a meteorologist determine what the average high or low temperatures are for any given day? Do some research on the Internet as a family to discover how meteorologists keep track of average temperatures for your city.

Some other questions to consider:

- How would a record high or low temperature affect the average temperature on a given day?
- What other factors could affect an average temperature?

Now it is your turn! Think about other situations, activities, or events in which averages are used as a form of measurement or comparison. Make a list as a family and discuss how averages are used in each of the situations. Then consider what is being measured and how knowing the average is beneficial to you.

May you have above average luck!

| Lesson | Learning Target | Success Criteria |
| :---: | :---: | :---: |
| 1.1 Introduction to Statistics | Identify statistical questions and use data to answer statistical questions. | - I can recognize questions that anticipate a variety of answers. <br> - I can construct and interpret a dot plot. <br> - I can use data to answer a statistical question. |
| 1.2 Mean | Find and interpret the mean of a data set. | - I can explain how the mean summarizes a data set with a single number. <br> - I can find the mean of a data set. <br> - I can use the mean of a data set to answer a statistical question. |
| 1.3 Measures of Center | Find and interpret the median and mode of a data set. | - I can explain how the median and mode summarize a date set with a single number. <br> - I can find the median and mode of a data set. <br> - I can explain how changes to a data set affect the measures of center. <br> - I can use a measure of center to answer a statistical question. |
| 1.4 Measures of Variation | Find and interpret the range and interquartile range of a data set. | - I can explain how the range and interquartile range describe the variability of a data set with a single number. <br> - I can find the range and interquartile range of a data set. <br> - I can use the interquartile range to identify outliers. |
| 1.5 Mean Absolute Deviation | Find and interpret the mean absolute deviation of a data set. | - I can explain how the mean absolute deviation describes the variability of a data set with a single number. <br> - I can find the mean absolute deviation of a data set. <br> - I can compare data sets using the mean absolute deviation to draw conclusions. |

