## **Unit 1 – Graphing Data and Analyzing Statistics**

## **Enduring Understanding**

Choices in data collection and representation affect their interpretation and use.

## **Essential Questions**

What is the purpose of displaying data?

How does the selection of a sample affect conclusions based on the sample?

How can the data representation influence conclusions?

How does the selection of a sample affect conclusions based on the sample?

Which measure of central tendency is most appropriate in a given situation?

## **Indicators**

- 4.6.1.2 conduct and use the results of a simple statistical investigation to answer a question.
- 4.6.1.1 identify and compare different ways of selecting a sample.
- 4.6.2.1 interpret, organize, and display data, with and without technology, using various formats, including frequency tables and circle graphs.
- 4.6.5.1 recognize and identify the misuses of statistical and numerical data.
- 4.6.5.3 analyze the effect a change of scale will have on graphs.
- 4.6.3.1 analyze and interpret data using various formats, including frequency tables.
- 4.6.4.1 select and justify mean, median, or mode of a data set as the best representation of data.
- 4.6.5.2 analyze why the way in which data is displayed might influence the conclusion reached.
- 4.6.1.3 construct convincing arguments to support conclusions based on analysis of data and interpretation of graphs.