



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute  
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## **An Introduction to Elementary Statistics**

Guide for Curriculum Unit 85.08.02  
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Statistics play a role in all our lives. From time to time we provide data or collect data to be organized, analyzed, and used in making decisions. For example, the registrar of vital statistics records our date of birth and our date of death. Periodically we are counted in the population census taken by the federal government. School children are always concerned about their scholastic averages. When planning vacations we are interested in data provided by the weather bureau. We try to predict the outcome of elections by analyzing the results of political polls that have been taken. Business people conduct surveys to find out what products are most frequently sought by consumers. Sports fans compare batting averages, wins and losses of various teams. Although our list could continue indefinitely, it is sufficient to say that we encounter statistics in many facets of our lives, and all school children should be introduced to basic statistical terms and concepts.

In this unit of study we will try to improve the students' understanding of the elementary topics included in statistics. The unit will clearly define the arithmetic mean, the median, the mode and the range of a group of numbers. Methods for computing these measures of central tendency will be discussed. Frequency tables, histograms and frequency polygons will be explained and constructed. Following the explanation of each topic, a set of practice exercises will be included.

There are several basic objectives for this unit of study. Upon completion of the unit, the student will be able to:

- understand and appreciate the use of statistics in everyday life,
- define basic terms used in statistics,
- compute simple measures of central tendency, and
- construct tables, bar graphs and line graphs that display these measures of central tendency.

(Recommended for Arithmetic classes, grades 7 and 8; Applied Mathematics classes, grade 9; and Consumer Mathematics classes, grade 10)

**Key Words**

*Statistics Mathematics Elementary*

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