



Yale-New Haven
Teachers Institute®

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2008 Volume VI: Depicting and Analyzing Data: Enriching Science and Math Curricula through Graphical Displays and Mapping

The Power of Graphical Display: How to Use Graphs to Justify a Position, Prove a Point, or Mislead the Viewer

Guide for Curriculum Unit 08.06.06
by Beth E. Klingher

In this curriculum unit, students will be introduced to different methods of manipulating data and graphical presentations to prove a point or mislead the viewer. Students will learn to analyze existing graphs to determine whether or not they show a bias. They will learn to question data collection methods and learn how surveys can be designed to promote a specific position or cause. Students will review the calculations behind various “averages” to better understand how different data distributions may alter these averages. They will identify the various graphical techniques often used to prove a point, deceive the viewer or to exaggerate a position. Finally, students will be asked to create a series of their own graphs to prove a point using a variety of data manipulation techniques.

(Developed for Pre-Algebra, grade 7; recommended for Statistics and Graphing, grades 7-9)

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