



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

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## **When Will We Ever Use This? Predicting Using Graphs**

Guide for Curriculum Unit 08.06.10

by Nancy J. Schmitt

High-school students are forever asking, “When will we ever use this?” To a math teacher the critical importance of math skills appears clear. The students’ inexperience makes it difficult for them to envision how they might some day use some of the skills required in the math curriculum. Finding activities that are “fun,” and appropriate to the skill levels of the students, is a challenge for a math teacher anywhere.

This unit will be organized linearly where each lesson builds on itself. Graphing may be done by hand, with computer graphing software, or graphing calculators, depending on the availability of technology to the classroom teacher and the technical ability of the students. Because I teach at a magnet school with a business focus, these lessons will emphasize business decisions. A student’s ability to perform data analysis and present the analysis in a clear format is crucial to good business foundations. It is the intent of this unit to provide the mathematical background to enable the student to produce an appropriate graphical display based on the data analysis. However, the materials and topics will be appealing to the teenager, so that any student will be able to connect with the lessons and see their application to some aspect of their current lives or future careers. The math skills and ideas that are included in this unit are based on learning to read and create scatter plots and line graphs, fit a line to a scatter plot and make simple predictions from data within the scope of the data (interpolation and extrapolation). The skill level is geared to an Algebra I class, but may be adapted to middle school or intensified for Algebra II, where regression analysis of the data by the student may be included.

(Developed for Algebra I, grade 9; recommended for Algebra I, grade 9)

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