



TEACHER PAGE

Lesson: Graphing Real-World Situations

Teacher-Author: Tom Rothery
ASSET Animator: Ziyad Saeed

New Arizona Math Strand 3 Patterns, Algebra, and Functions Grades 9-12
Articulated 3MH2-02 Describe a contextual situation that is depicted by a given graph. 3MH2-03 Identify a graph that models a given real-world situation. 3MH2-04 . Sketch a graph that models a given contextual situation.

Old Arizona Math Standard 4 Geometry Proficiency 2 Grades 9-12
3MP2-PO2, 3MP1-PO3

Learning objectives: the student will be able to:

- explain how a real-world situation can be placed on a two-dimensional graph to show the dynamic nature of the situation.
- explain the dynamic nature of a real-world situation visualized by using a graph
- identify a graph to depict a real-world situation.
- explain a real-world situation by sketching its depiction on a graph.

Overview:

This lesson uses several different real-world situations to instruct the student in describing graphed situations and identifying and sketching models of a real-world situation. Some of the situations used in the lesson are relative to the students daily activities and some of them extend the student's knowledge related to other situations. The student cannot move forward in the lesson without determining the correct answer. English, Navajo and Spanish translations in development. Spanish/English math dictionary: www.math2org/spanish/eng-spa.htm.

Classroom Management:

This can be used in large group lessons, small group, or individual assignments. Each student will move through the lesson at differing speeds.

Engaging Students:

Conduct small group discussions on the importance and relevance of being able to interpret real-world graphs. The newspaper, *USA Today*, is especially useful in doing this, as are other newspapers.

Follow-up:

The National Council of Teacher of Mathematics web site, as well as *The Arithmetic Teacher*, *Middle School Mathematics*, and *The Mathematics Teacher* can be excellent resources for appropriate follow-up lessons.

Assessment:

Multiple-choice questions must be correctly answered in order to finish the lesson.

