

# All Maps Lie: A Look at the Properties and Functions of Maps

Students will examine the properties of maps and create a project to show they understand how maps can lie.

Adapted from: Doug Anderson, Utah Geographic Alliance

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<b>Grade Level</b>	6-8
<b>Duration</b>	1-2 class periods plus homework

## Geography Standards

### ELEMENT ONE: THE WORLD IN SPATIAL TERMS

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

## Arizona Geography Strand

### Concept 1: The World in Spatial Terms

**P.O. 2** Identify purposes and differences of maps, globes, aerial photographs, charts and satellite images.

## Other Arizona Standards

### Writing Standards for 6-8 for Literacy in History/Social Studies, Science, and Technical Subjects Production and Distribution of Writing

**6-8.WHST.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.  
a. Produce clear and coherent functional writing (e.g., formal letters, envelopes, procedures, labels, timelines, graphs/tables, experiments, maps, captions, charts, diagrams) in which the development, organization, and style are appropriate to task, purpose, and audience.

## Overview

Maps skills are tools for our understanding the world around us. Students will answer the question of how maps lie through an examination of the properties and functions of maps.

## Purpose

In this lesson students will identify and describe the properties and functions of maps and be able to create a project to demonstrate how maps lie.

## Materials

- All Maps Lie Power-point Presentation
- All Maps Lie Note Sheet
- All Maps Lie Choice Board
- All Maps Lie Grading Rubric

## Objectives

The student will be able to:

1. Identify the advantages and disadvantages to

maps and globes.

2. Identify map projections
3. Distinguish between large and small scale maps.
4. Explain why cartographers use generalization and exaggeration.

## Procedures

### SESSION ONE

1. Group Activity. The teacher will present and explain the power-point presentation while the students fill in the appropriate sections of the note sheet.

### SESSION TWO

1. Present to the students the choice board and the rubric for grading to ensure the students know the expectations.

2. Students will choose and complete one of the three projects from the choice board. The project can be completed during class time or as homework.

## Assessment

Using the rubric, points will be assigned as to how the student met the expectations. Mastery in geography will be assessed by earning 80% or higher on the project.

## Extensions

Have the students create their own cartoon strips for the topic.

Have the students set up an exhibit showing maps that lie.

Have students view

<http://www.youtube.com/watch?v=vVX-PrBRtTY>

--a discussion on map projections done on TV show called West Wing

## Sources

Map projections courtesy of University of Colorado Boulder.

<http://www.colorado.edu/geography/gcraft/notes/mapproj/mapproj.html>

National Geographic for teachers

<http://education.nationalgeographic.com>

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