TOADS: An Introduction to Map Reading

Students learn to apply the acronym, TOADS, to learn an effective way to read maps.

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Grade Level
2-3

Duration
1 class period

National 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
Grade 2
Strand 4 Geography
Concept 1 The World in Spatial Terms
PO 2 Interpret political and physical maps using the following elements:
  a. alpha numeric grids
  b. title
  c. compass rose - cardinal directions
  d. key (legend)
  e. symbols

Grade 3
Strand 4 Geography
Concept 1 The World in Spatial Terms
PO 2 Interpret political and physical maps using the following elements:
  a. alpha-numeric grids
  b. title
  c. compass rose - cardinal and intermediate directions
  d. symbols
  e. legend
  f. scale

Other Arizona Standards
Strand 1 American History
Strand 2 World History
Concept 1: Research Skills for History
PO 4. Use primary source materials (e.g., photos, artifacts, interviews, documents, maps) and secondary source materials (e.g., encyclopedias, biographies) to study people and events from the past.

ELA Common Core Standards
Reading
Informational Text
Key Ideas and Details
2.RI.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Craft and Structure
2.RI.4 Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
3.RI.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
2.RI.5 Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
3.RI.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

Integration of Knowledge and Ideas
2.RI.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
Overview

Map skills are basic to geographic understanding. Students need a system to analyze and evaluate maps. TOADS provides a standard for such assessment and can be applied to commercial maps used in the classroom, as well as to maps generated by students.

Purpose

In this lesson, students will learn the 5 basic elements for creating and reading a map. In the lesson for older students, students will learn the 9 basic elements for a map (DOGSTAILS).

Materials

- Overhead explaining each word in the acronym TOADS (see student sheet for this lesson)
- TOADS worksheets
- Enough different maps for students to work in pairs (these can be road maps, maps from text books, student atlases, etc.)
- Maps are also available from www.nationalgeographic.com

Objectives

The students will be able to:

- Name, locate, and use the essential parts of a map.
- Understand the correct way to analyze and interpret a map.

Procedures

1. Introduce the term "acronym" to the students and explain that TOADS is an example of an acronym.

2. Explain that TOADS is a way of interpreting maps that should be used whenever a person uses a new map.

3. Use the TOADS overhead and explain the parts of a map. T=Title, O=Orientation, A=Author (Cartographer), D=Date, and S=Scale. Particular attention is needed on the explanation of "scale" with younger students. Students should be recording this information on the first side of their worksheet.

4. Divide the students into pairs. Give each group a different map. Place the overhead on the projector and tell each group to find the TOADS elements on their maps. Students record their findings on the backside of their worksheets. They may also use Post-it stickies to identify TOADS on their maps. *Note-NOT all elements will be found on ALL maps.

5. Students should practice these identification skills on a different map (with post-its removed) and complete a new worksheet on their own.

6. When students are finished, have them share their answers. They may also walk around observing each other's maps, which have been completed using TOADS.
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Assessment

Students will correctly identify and list the 5 components of the TOADS lesson on the TOADS worksheet. Mastery for geography and reading will be considered 4 of the 5 components done correctly.

Extensions

Reinforce the procedure whenever new maps are used. This analysis of elements can be applied to historical maps of the eras being studied.

Whenever students create their own maps, have them include the elements of TOADS

Progress to DOGSTAILS as students are able to add new skills in map reading.