



TOADS: An Introduction to Map Reading

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Grade Level 2-3
Duration 1 class period

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Use DOGSTAILS For Grades 6-HS <https://geoalliance.asu.edu/dogstails>

National Standards

GEOGRAPHY

Element 1: The World in Spatial Terms

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

AZ Standards

ELA

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.

3.RI.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

Range of Reading and Level of Text Complexity

2.RI.10 By the end of year, read and comprehend functional texts, including history/social studies,

Arizona Social Science Standards

GEOGRAPHY

The use of geographic representations and tools help individuals understand their world.

2.G1.1 Use and construct maps, graphs, and other geographic representations of familiar and unfamiliar places in the world; and locate physical and human features. Key physical features include but are not limited to seven continents, oceans, lakes, rivers, mountain ranges, coasts, seas, and deserts. Key human features include but are not limited to equator, hemispheres, North and South Pole, cities, states, countries, regions, and landmarks

The use of geographic representations and tools helps individuals understand their world.

3.G1.1 Use and construct maps and graphs to represent changes in Arizona over time.

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science, and technical texts, in the text complexity range determined by qualitative and quantitative measures appropriate to grade two.

3.RI.10 By the end of the year, read and comprehend functional texts, including history/social studies, science, and technical texts in a text complexity range determined by qualitative and quantitative measures appropriate to grade 3.

SIOP Elements

Preparation Adapting content Linking to background Linking to past learning Strategies used	Scaffolding Modeling Guided practice Independent practice Comprehensible input	Grouping Option Whole class Small groups Partners Independent
Integrating Processes Reading Writing Speaking Listening	Application Hands on Meaningful Linked to objectives Promotes engagement	Assessment Individual Group Written Oral

Arizona ELP Standards

Grade 2 and 3

Basic

Listening and Reading

Standard 1 By the end of each language proficiency level, an English learner can construct meaning from oral presentations and literary and informational text through grade appropriate listening, reading, and viewing.

B-1: ask and answer questions by using evidence from a text.

Standard 2 By the end of each language proficiency level, an English learner can determine the meaning of words and phrases in oral presentations and literary and informational text.

B-1: determine the meaning of frequently occurring academic and content-specific words and phrases.

Listening, Speaking, Reading, and Writing

Standard 7 By the end of each language proficiency level, an English learner can conduct research and evaluate and communicate findings to answer questions or solve problems.

B-1: gather information from multiple provided resources to answer questions.

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). This lesson contains strategies for teaching diverse learners (ELLs).

Key Vocabulary

title – name of map

author – who made map

orientation – showing directions, compass rose

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date – the day, month, and year the map was made

scale – a measure to compare distance on map and distance on earth

Materials

- Explanation of TOADS Acronym
- TOADS worksheet
- Toads Test
- Enough different maps for students to work in pairs (these can be road maps, maps from text books, student atlases, etc.)
- Removable sticky dots (optional)
- Arrow labels with the 5 elements
- Vocabulary Cards
- Blank paper
- TOADS Student Dictionary Pages Directions

Objectives

The students will be able to:

- Name, locate, and use 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 give examples that the students already know (i.e. name of school = Frontier Elementary School but the acronym is FES). **(Preparation: Adapting Content, Linking to background)** Explain that TOADS are animals (show a picture of one) **(Preparation: Adapting Content, Linking to past knowledge)** but in this lesson TOADS is an acronym that helps us talk about maps.

2. Show a map of the school or the neighborhood. **(Preparation: Adapting Content, Linking to background)** Ask students to find things they see on the map. **(Scaffolding: Guided practice, Comprehensible input)** Direct students to find the title. Explain that TOADS is a way of interpreting maps that should be used whenever a person uses a new map.

3. Continue with each letter in the word TOADS to explain the other parts of a map, showing a word card for each geography vocabulary word in the acronym. T=Title, O=Orientation, A=Author (Cartographer), D=Date, and S=Scale. Particular attention is needed on the explanation of scale with younger students. **(Integrating Processes: Speaking, Listening)**

4. Divide the students into pairs. **(Grouping: Partners)** Give each group a different map. Place the overhead on the projector and tell each group to find the TOADS elements on their maps.

(Scaffolding: Modeling) Students point to the correct areas using the TOAD pointers or placing plastic toads on each map area. **(Application: Hands on, Meaningful, Promotes engagement)** Note: NOT all elements will be found on ALL maps.

5. Students should practice these identification skills on a different map (using pointers or plastic toads) and complete a new worksheet on their own.

(Scaffolding: Independent practice; Application: Hands on, Linked to objectives)

6. When students are finished, have them share their answers individually with you or in a small group presentation to the class. **(Grouping: Small groups, independent)** They may also walk around observing each other's maps, which have been completed using TOADS.

7. Repeat as often as you think.

8. Optional: Students can create a TOADS Dictionary. See TOADS Student Dictionary Pages Directions.

8. For the assessment, distribute a new TOADS worksheet and the same map to each student. A suggested map is Arizona's Cities with Compass Rose found at

http://geoalliance.asu.edu/sites/default/files/maps/Az_citiesCompassLatLong.PDF Have students work independently to complete the worksheet.

Assessment

Students will correctly identify on a map the 5 components on the TOADS Test. 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 (grid, symbols, legend, etc.) in map reading. <https://geoalliance.asu.edu/dogstails>