

We're Going on an Ant Hunt

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Grade Level 1
Duration 2 class periods

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.

Element 3: Physical Systems

8. The characteristics and distribution of ecosystems and biomes on Earth's surface

AZ Standards

ELA

Reading

Key Ideas and Details

1.RL.1 Ask and answer questions about key details in text.

Craft and Structure

1.R.1.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

Writing

Text Types and Purposes

1.W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.

SCIENCE

U1: Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised.

Arizona Social Science Standards

GEOGRAPHY

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

1.G1.1 Use, explore and construct maps, graphs, and other geographical representations to support content focus.

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



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Integrating Processes	Application	Assessment
Reading Writing Speaking Listening	Hands on Meaningful Linked to objectives Promotes engagement	Individual Group Written Oral

Arizona English Language Proficiency Standards

Stage II

Basic

Comprehension of Oral Communications

Basic

Standard 1: The student will listen actively to the ideas of others in order to acquire new knowledge.

B-5: responding to social conversations by rephrasing and repeating information, sharing one's experiences, and expressing one's thoughts.

Reading

Comprehending Text

Standard 4: The student will analyze text for expression, enjoyment, and response to other related content areas. The student will demonstrate knowledge of reading comprehension by:

B-9: identifying the purpose for reading specific books.

B-7: identifying the topic/main idea and key details from text heard or read, using sentence frames.

Writing

Writing Process

Standard 3: Students use the steps of the writing process as a writing piece moves toward completion.

B-1: generating ideas through class discussion and guided writing to record ideas (e.g., graphic organizers, etc.) with instructional support

Overview

The ability to map an area is a lifelong skill. Even first graders can learn some of the basic elements of mapping by locating ant habitats in an environment familiar to them and then recording the habitats on a map.

Purpose

In this lesson, students will be mapping ant habitats in their schoolyard. This lesson includes strategies for diverse learners (ELLs).

Key Vocabulary

subterranean: underground

habitat: home environment

structure: something that is built

mandible: the part of the ant that digs

fire ants: a type of ant that stings

Materials

- Assorted books about ants
- Map of your school
- Chart paper, markers
- YouTube video "Casting an Ant Colony with Molten Aluminum"
- Vocabulary Cards and Test

Objectives

The student will be able to:

1. locate and label places on the map of your school where ants can be found.
2. write a report using a topic sentence, three facts about ant habitats, and a closing sentence.
3. contribute and write one fact (or draw a picture to represent that fact) on the class K-W-L chart.



Education Studies Department

Teachers of Language Learners Learning Community (TL²C)



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Procedures

Prerequisite Learning: Students have learned that maps are a flat representation of an area and have some experience in reading a simple map.

SESSION ONE

Engage:

1. Show the students the YouTube video "Casting an Ant Colony with Molten Aluminum".
2. Ask the students "How many of you have seen an ant?" Where have you seen the ants? What do we know about ants and their homes? **(Preparation: Linking to background)**

Explain:

1. Begin a K-W-L chart as a class. **(Grouping Option: Whole class)** Record class responses under K for what they already know. **(Preparation: Linking to background) (Scaffolding: Modeling)**

Elaborate:

1. Break the class into small groups. **(Grouping option: Small groups)** Each group will find one new fact they can either write or draw a picture of and add to the K-W-L chart. Have students use library books on the topic of ants. **(Integrated processes: Reading, Writing)** Some examples are
 - Thinking About Ants by Barbara Brenner
 - The World of Ants by Melvin Berger
 - Inside An Ant Colony by Allan Fowler
2. Make sure that the vocabulary words (subterranean, habitat, structure, mandible, and fire ants) are now recorded on the K-W-L chart. Have students act out the words as they are pointed to on the chart. Place these words on a word wall.

SESSION TWO

Explore:

1. Hand out the map of your school to each student and review basic map skills as a whole group. These skills should include locating the title, compass rose, symbols and legend (key). Spend time showing the students where their classroom is

and other key locations on campus. **(Preparation: Linking to past learning)**

3. Take the students outside and explore the school campus to find ant habitats. Have students record on the map each location where they find ants. **(Application: Promotes engagement)**
4. Allow students to explore and find at least one more location of ant homes and record the location on their map. **(Scaffolding: Independent practice)**

Evaluate:

1. Evaluate student performance. Did the student correctly label the ant habitats we found as a class? **(Assessment: Group)** Did the student find at least one more ant habitat? **(Assessment: Individual)** Did the student participate in the making of the K-W-L chart? **(Assessment: Individual)**

Assessment

Mastery will be considered:

- Each student has 3 out of 5 ant habitats that were found as a class recorded correctly on his/her map.
- Each student has located one more ant habitat and recorded it on his/her map.
- Each student has written a report using a main topic sentence, 3 facts and a closing sentence about ant habitats.
- Each student has scored 80% or higher on the Vocabulary Test.

Extensions

- Build an ant farm in the classroom.
- Build a model of an ant. Learn more of the anatomy of the ant.

Sources

"Casting an Ant Colony with Molten Aluminum". <https://www.youtube.com/watch?v=IGJ2jMZ-gal> (2.30 min)

