

# H<sub>2</sub>O on the Go! Learning about Fresh and Salt Water

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<b>Grade Level</b>	1
<b>Duration</b>	3 class periods

## National Standards

**GEOGRAPHY STANDARDS**  
**Element Two: Places and Regions**  
 5. That people create regions to interpret Earth's complexity.

## Common Core Standards (AZ College and Career Ready Standards)

**ELA**  
**1 Writing Standards**  
**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.  
**Research to Build and Present Knowledge**  
**1.W.8** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

## Other Arizona Standards

**SCIENCE STANDARD**  
**Strand 1 Inquiry Process**  
**Concept 2 Scientific Testing**  
 PO 2. Participate in guided investigations in life, physical, and Earth and space sciences.  
 PO 4. Record data from guided investigations in an organized and appropriate format.  
**SOCIAL STUDIES STANDARD**  
**Strand 4 Geography**  
**Concept 1 The World in Spatial Terms**  
 PO 5. Locate physical and human features using maps, illustrations, images, or globes: a. physical (i.e., continent, ocean, river, lake, mountains, islands)  
**Concept 2 Places and Regions:**  
 PO 2. Discuss physical features (e.g., mountains, rivers, deserts) in the world.

## SIOP Elements

### Preparation

Adapting content  
 Linking to background

### Scaffolding

**Modeling**  
 Guided practice

### Grouping Option

Whole class  
 Small groups



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## H<sub>2</sub>O on the Go! Learning about Fresh and Salt Water

<b>Linking to past learning</b> Strategies used	Comprehensible input	Partners Independent
<b>Integrating Processes</b> Reading Writing Speaking Listening	<b>Application</b> Hands on Meaningful Linked to objectives <b>Promotes engagement</b>	<b>Assessment</b> Individual <b>Group</b> Written Oral

### TESOL Standard(s)

#### Goal 2, Standard 1

**To use English to achieve academically in all content areas: Students will use English to interact in the classroom.**

- Participating in full class, group, and pair discussions

#### Goal 2, Standard 2

**To use English to achieve academically in all content areas: Students will use English to obtain, process, construct, and provide subject matter information in spoken and written form.**

- Persuading, arguing, negotiating, evaluating, and justifying
- Listening to, speaking, reading, and writing about subject matter information
- Analyzing, synthesizing, and inferring from information

#### Goal 2, Standard 3

**To use English to achieve academically in all content areas: Students will use appropriate learning strategies to construct and apply academic knowledge.**

- Applying basic reading comprehension skills such as skimming, scanning, previewing, and reviewing text
- Actively connecting new information to information previously learned

### Arizona English Language Proficiency Standards

#### Stage II

#### Basic

#### Reading

#### Comprehending Text

**Standard 4: The student will analyze text for expression, enjoyment, and response to other related content areas.**

B-15: locating information from a completed graphic organizer.

#### Writing

**Standard 1: The student will express his or her thinking and ideas in a variety of writing genres.**

B-3: completing a written summary of the key events or ideas of informational text using key words and phrases with instructional support.

B-4: creating expository text (*e.g., labels, lists observations, and journals*) using key words and phrases based on research, observation, and/or experience with instructional support.

**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.

#### Vocabulary

**Standard 2: The student will acquire English language vocabulary and use it in relevant contexts.**

B-5: determining the meaning of grade-level content area words with instructional support.



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## Overview

The Earth has many different habitats and it is important for students to identify and understand the different characteristics of these habitats. Two habitats that can be understood by young learners are those that involve fresh and salt water.

## Purpose

In this lesson students will learn to locate and label rivers, lakes and oceans on maps. They will also make observations and record data during a guided science inquiry on fresh v. salt water. This lesson contains strategies for diverse learners (ELLs).

## Key Vocabulary

**ocean:** large body of salt water

**river:** a flowing stream of water

**lake:** a body of water surrounded by land

**fresh:** kind of water from rivers and lakes

**salt:** kind of water from oceans

## Materials

- Science notebook
- Word cards and labels
- 1 boiled egg for each group of students
- Scientific Method Using 4 Senses worksheet
- 2 cups for each group (numbered 1 and 2)
- Salt
- Water
- Stars of Informational Writing scoring guide
- Vocabulary cards
- Vocabulary Test and Answer Key
- Venn diagram
- The United States with surrounding countries and major rivers map (only use first map)

## Objectives

The student will be able to:

1. Locate and label oceans, lakes and rivers on a map.
2. Record and analyze data during a scientific inquiry.
3. Identify the difference between fresh and salt water.

## Procedures

Students should already been introduced to the scientific investigation.

### SESSION ONE

#### Engage:

- a. Tell the students to sketch in their science notebook a diagram of a body of water and what animals live in the water. (Ex. They can sketch an ocean, river or a lake.) **(Preparation: linking to background knowledge)**
- b. Choose a few students to share. Pick one that drew a lake, a river and then the ocean.
- c. Compare the drawings. What is the same? What is different? **(Application: Promotes engagement)**

#### Explore:

- a. Name each of the types of bodies of water and create a KWL for ocean, river and lake. **(Preparation: linking to background knowledge)**
- b. Pass out the river, ocean, and lake pictures to each group with word cards (ocean, river and lake). Have students match which picture goes with each label. **(Application: Hands on)**
- c. Choose groups to share why they matched each label and picture. **(Grouping option: small groups)**
- d. Create actions, pictures and friendly definitions for each word. **(Application: Promotes engagement)**

#### Explain:

- a. Pass out The United States with surrounding countries and major rivers map. Label and color the oceans blue.
- b. Then have the students color the fresh water (rivers and lakes) green.
- c. Have students draw two boxes on the map and label them ocean and fresh water. Have them color the right color into each box (blue/ocean, green/rivers and lakes) to make a legend. **(Application: Hands on) (Scaffolding: Comprehensible input)**

#### Elaborate:

- a. Have student analyze their coloring. Which color is there more of? What does the blue color mean? Which color is there the least amount of? What does the green color mean?
- b. Label the map with the vocabulary words (river, ocean, and lakes). **(Application: Hands on) (Scaffolding: Comprehensible input)**



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### SESSION TWO

#### Engage:

a. Watch the Study Jams! video about aquatic ecosystems. Tell students to look for similarities and differences of salt water v. fresh water as they watch the video. (4 min) **(Application: Promotes engagement)**

<http://studyjams.scholastic.com/studyjams/jams/science/ecosystems/aquatic-ecosystems.htm>

#### Explore:

a. Play the video again. As a class, create a Venn diagram to show the similarities and differences they see in the video about fresh and salt water.

**(Grouping option: Whole class)**

[http://www.readwritethink.org/files/resources/interactives/venn\\_diagrams/](http://www.readwritethink.org/files/resources/interactives/venn_diagrams/)

#### Explain:

a. Review scientific Inquiry steps. **(Preparation: linking to background knowledge)**

b. Pass out two cups of water to each group: cup 1 will be salt water and cup 2 will be fresh water. Make sure the cups have a number 1 and a 2 printed on them so they can record their observations using these numbers. Pass out the Scientific Method Using 4 Senses worksheet.

c. Tell them the big question is "How can we tell the difference between salt water and fresh water?" First have the students look at the two cups. The students can either write sentences or draw pictures of what they see. Remind them that they need to make sure their observations are recorded as 1. for cup 1 and 2. for cup 2. **(Integrated Processes: Writing) (Application: Hands on, Promotes engagement)**

d. Do the same for the sense of hearing, touch, and smell.

e. Pass out the egg. Go back to sight and put in egg to see if it will sink or float in cup 1 or cup 2.

**(Application: Hands on, Promotes engagement)**

#### Elaborate:

a. Direct them as a group to come to a consensus of which cup holds the salt water and the fresh water. **(Grouping option: Small groups)**

#### Evaluate:

a. Instruct the students to walk to a part of the room if they think that cup 1 is the salt water and walk to a different part of the room if they think cup 2 is the salt water. **(Assessment: Group)**

b. Collect data as a class as to how many groups thought cup 1 was salt or fresh water. Reveal the answer to the students.

### SESSION THREE

#### Engage:

a. Review the KWL and add the findings from other sessions to the chart. Add a Q to the KWL chart. Add what questions do they still have or what new questions do they have. **(Scaffolding: Comprehensible input)**

#### Explore:

a. Give the students time to investigate the answers to their questions using the Internet and/or informational books. **(Integrating Processes: Reading and Writing)**

b. Discuss what they learned and review how to write an informative paper. **(Preparation: linking to background knowledge)**

#### Explain:

a. Explain they will write about either salt water or fresh water and include four facts. They can use their Scientific Method Using 4 Senses worksheet, Venn diagram, and the KWL chart posted in the room. **(Scaffolding: Comprehensible input)**

b. Model an informative paper by writing your own main idea with 3-4 supporting details. **(Scaffolding: Modeling)**

#### Elaborate:

a. Use these sentence frames for the ELLs or other diverse learners in your classroom.

I learned about \_\_\_\_\_. One fact I learned was \_\_\_\_\_. Another fact is \_\_\_\_\_. I also learned that \_\_\_\_\_. **(Preparation: Adapting Content)**

b. Take the students to the computer lab and have them create their writing on Pixie or a similar computer program. **(Application: Hands on, Promotes engagement)**

#### Evaluate:

a. Give the students The United States with surrounding countries and major rivers map and have them label oceans, rivers and lakes.

b. Grade the writing and check to see if their facts match the correct information learned about fresh and salt water. **(Assessment: Written)**

### Assessment



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For mastery:

### **Geography**

Students will score 100% on identifying a river, a lake, and an ocean on the map.

### **Writing**

Students will receive 4 stars or higher on the Stars of Informational Writing scoring guide on their informative paper.

### **Science**

Students will correctly complete 90% of the Scientific Method Using 4 Senses worksheet.

### **Vocabulary**

Students will score 80% or higher on the Vocabulary Test.

## Extensions

Have the students see which type of water does the Earth have more of. Have a discussion about why it is important for us to conserve water.

Add the words continent, mountain, and island to their word wall. Use the series of maps listed below to teach these new terms.

[http://geoalliance.asu.edu/sites/default/files/maps/Physical\\_1st\\_PO4\\_Colors.pdf](http://geoalliance.asu.edu/sites/default/files/maps/Physical_1st_PO4_Colors.pdf)

[http://geoalliance.asu.edu/sites/default/files/maps/Physical\\_1st\\_PO4\\_Blanks.pdf](http://geoalliance.asu.edu/sites/default/files/maps/Physical_1st_PO4_Blanks.pdf)

[http://geoalliance.asu.edu/sites/default/files/maps/Physical\\_1st\\_PO4s.pdf](http://geoalliance.asu.edu/sites/default/files/maps/Physical_1st_PO4s.pdf)

Have an inflatable globe and throw the globe to different students. As they catch the globe see if they are touching water or land. This shows the students that most of the world is water. Then talk

about what kind of water they are touching (salt or fresh). Is this water able to be drinking water or not? This will show them how precious our fresh water is and that we need to conserve and take care of this resource.

Watch the Study Jams video on other biomes.

<http://studyjams.scholastic.com/studyjams/jams/science/ecosystems/biomes.htm>

## Sources

Videos:

<http://studyjams.scholastic.com/studyjams/jams/science/ecosystems/aquatic-ecosystems.htm>

<http://studyjams.scholastic.com/studyjams/jams/science/ecosystems/biomes.htm>

Worksheets:

The United States with surrounding countries and major rivers from Arizona Geographic Alliance  
<http://geoalliance.asu.edu/azga/>

Star grading scale for Informational paper

<http://www.teacherspayteachers.com/Product/5-Star-Writing-Rubrics-227337>

Biome map from

<http://askabiologist.asu.edu/explore/biomes>

Online Venn diagram

[http://www.readwritethink.org/files/resources/interactives/venn\\_diagrams/](http://www.readwritethink.org/files/resources/interactives/venn_diagrams/)



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