

# Oceans Versus Lakes

**Target Audience:**  
2nd Grade  
**Lesson # 2**

**Goals:** The goal of this lesson is for students to learn about the general characteristics of lakes and oceans.

**Objectives:** Students will be able to:

- Explain two differences between lakes and oceans (oceans have salt water and lakes do not, lakes are smaller etc.)
- Name three life forms that live only in the ocean (ex. Sharks, whales, sea turtles etc.)
- Describe two similarities between oceans and lakes (both are bodies of water, both support many kinds of life etc.)
- Differentiate between the terms pond, lake and ocean.

**Key Vocabulary Terms:**

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- Saltwater: “Water from the ocean that contains dissolved salt” (VanCleave 1996).
- Lake: “An inland body of standing water” (Webster Dictionary 1997).
- Ocean: “The entire body of salt water that covers about three-fourths of the earth’s surface” (VanCleave 1996).
- Pond: “A pool of fresh water that can exist for a short amount of time, to many years. A pond forms in a hollow in the ground and prevents rainwater from draining” (Morgan 2000).
- Freshwater: 1) “Clean, unpolluted water without salinity” (EPA 1997). 2) “Water that is not salty” (VanCleave 1996).

**Lesson Duration:** This lesson will last 45 minutes.

**Lesson Location:** The entire lesson will take place in the classroom.

**Materials:**

- Salt
- Water
- Two Large plastic containers
- Pictures of: lakes, oceans, animals that live in each, and types of aquatic invertebrates
- Small drinking cups (one per student)
- Two raw eggs
- Worksheet: Oceans and Lakes (attached)

- Crayons, markers, pencils
- Index cards labeled with different types of life (see activity: What am I?)

### **Content and Methods:**

#### Introduction:

- Many people have had a chance to visit a pond, lake, or even an ocean. What have you been able to visit?
  - There are different kinds of bodies of water. Some are really big, and some are very small. Let's take a look at each kind. Have students give the name of each.
    - Draw on the board from smallest to largest: 1) Puddle (with a few small insects, 2) Pond (with turtles, fish, frogs) 3) Lake (beavers, large fish etc.), 4) Ocean (with sharks, whales etc.)
  - Ponds can be found in many places. What kinds of critters have you seen or caught in ponds?
- I brought some pictures to show you of the kinds of insects that live in ponds. Some of you caught these kinds of insects.

#### Oceans and Lakes

- Lakes are bigger than ponds. But, today we are going to learn about a body of water that is even bigger than a lake. What would that be? (Ocean).
- We're going to do some experiments:
  - Place two containers out so that all students can see them. One is filled with water like you would find in a lake, and the other has water like you would find in an ocean. How can we tell them apart?
    - Put a raw egg in each and have students observe what is happening (one egg will float, and one will sink).
    - I'll give you a hint; the saltwater helps things to float really well. Now can you tell which has the salt water?
  - Let's see if you can taste the difference between salt and freshwater. (Explain what those terms mean).
    - Give each student a cup and put either salt or freshwater in the cup. Their job is to decide which it is. After students have guessed if they have salt or freshwater, give the opposite type of water to everyone. This will help them to taste the difference between salt and freshwater.

#### Activity (If time permits): "What Am I?" (See attached worksheet).

- In this game, students will learn about the different types of life that can be found in oceans and lakes.
  - Give each student a picture or index card with the name of one type of animal written on it. The animal should either live in a lake or ocean.

- Students will work in pairs. One student looks at the word or picture, and the partner must guess what the animal is by asking 20 'yes' or 'no' questions.
- Scoring: If the student can guess the animal after asking 20 or fewer questions, he/she will get 10 points. If the students can say if the animal lives in a lake, or ocean he/she will earn 5 extra points.
- Have partners switch roles so that everyone has a turn to guess. They may play for as many rounds or points as time permits.

Drawing: Worksheet-Oceans and Lakes (see attached)

- In this activity, students are to think about and draw what kinds of life would be found in a lake, and what would be in an ocean.
  - Alternative: students could decide what type of body of water to draw (pond, lake, or ocean). This could be done on large paper so that the life forms and characteristics can be labeled drawn with more detail.

Conclusion:

- What is the biggest type of body of water? (Ocean)
- What are some types of animals that only live in the ocean? (Sharks, whales, sting rays etc).
- What are some types of animals that live in lakes and not the ocean? (Painted turtles, freshwater fish, frogs etc.)
- Do things float better in saltwater or freshwater?

**Evaluation:**

- Objective #1 will be met when students explain two differences between lakes and oceans (oceans have salt water and lakes do not, lakes are smaller etc.)
- Objective #2 will be met when students name three life forms that are found in the ocean and not in lakes (sharks, whales, dolphins etc.)
- Objective #3 will be met when students describe two similarities between oceans and lakes (both are bodies of water, both support many kinds of life etc.)
- Objective #4 will be met when students differentiate between the terms pond, lake and ocean

**References:**

- Janz, J., & Gentry, H. "Oceans." Core Knowledge Lesson Plans. <http://www.coreknowledge.org/Ckproto2/resrcs/lessons/PreK98Oceans.htm>
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- Ricciuti, Edward R. (1996). Ocean. New York: Benchmark Books.
- Taylor, Barbara. (1998). Look Closer: River Life. New York: DK Publishing, Inc.
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- Webster's Dictionary of the English Language. (1997). Foothill Ranch, CA: Trident Press International

## **Form A**

### Who Am I?

Directions:

Choose the animals that you know most about. Your partner may ask 20 questions to try and guess that animal. Write the score in the box.

Animal

Points

	Right Animal (10 points each)	Right Body of Water (5 pts. each)
Shark (Ocean)		
Whale (Ocean)		
Sea Turtle (Ocean)		
“Sea Gull” or Ring-Billed Gull (Lake)		
Frog (Lake)		

**Form B**  
Who Am I?

Directions:

Choose the animals that you know most about. Your partner may ask 20 questions to try and guess that animal. Write the score in the box.

Animal

Points

	Right Animal (10 points each)	Right Body of Water (5 pts. each)
Dolphin (Ocean)		
Hermit Crab (Ocean)		
Penguin (Ocean)		
Duck (Lake)		
Aquatic Insects or Water Bugs (Lake)		

**Oceans and Lakes**

This is a picture of life in a LAKE:

My favorite lake animal is \_\_\_\_\_

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This is a picture of life in the OCEAN:

My favorite ocean animal is \_\_\_\_\_