



# Critical Thinking Skills



## Conservation: Ocean Water Resources

Skills For Critical Thinking	Reading							Hands-on Activities
	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	Section 7	
<b>LEVEL 1</b> Remembering <ul style="list-style-type: none"> <li>List Details/Facts</li> <li>Recall Information</li> <li>Match Vocab. to Definitions</li> <li>Define Vocabulary</li> <li>Label Diagrams</li> <li>Recognize Validity (T/F)</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓
<b>LEVEL 2</b> Understanding <ul style="list-style-type: none"> <li>Demonstrate Understanding</li> <li>Explain Scientific Causation</li> <li>Rephrasing Vocab. Meaning</li> <li>Describe</li> <li>Classify Into Scientific Groups</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓
<b>LEVEL 3</b> Applying <ul style="list-style-type: none"> <li>Application to Own Life</li> <li>Model Scientific Processes</li> <li>Organize &amp; Classify Facts</li> <li>Use Alternative Research Tools</li> </ul>		✓	✓			✓	✓	✓
<b>LEVEL 4</b> Analysing <ul style="list-style-type: none"> <li>Distinguish Roles/meanings</li> <li>Make Inferences</li> <li>Draw Conclusions based on Facts Provided</li> <li>Classify Based on Facts Researched</li> </ul>		✓		✓		✓		✓
<b>LEVEL 5</b> Evaluating <ul style="list-style-type: none"> <li>State &amp; Defend Opinion</li> <li>Justify Choices for Research Topics</li> <li>Defend Selections &amp; Reasoning</li> </ul>		✓	✓	✓	✓	✓	✓	
<b>LEVEL 6</b> Creating <ul style="list-style-type: none"> <li>Compile Research Information</li> <li>Design &amp; Application</li> <li>Create &amp; Construct</li> <li>Imagine Self in Scientific Role</li> </ul>	✓				✓		✓	✓ ✓ ✓ ✓

Based on Bloom's Taxonomy



# Climate Change and Salt Water

1. Circle the word **TRUE** if the statement is TRUE or Circle the word **FALSE** if it is FALSE.

- a) The greenhouse effect traps heat in Earth's atmosphere.  
**TRUE**      **FALSE**
- b) Carbon dioxide is a greenhouse gas.  
**TRUE**      **FALSE**
- c) Natural gas is a fossil fuel.  
**TRUE**      **FALSE**
- d) When Earth gets warmer, the ocean level drops.  
**TRUE**      **FALSE**
- e) Scientists can predict what the ocean level will be in the year 2100.  
**TRUE**      **FALSE**
- f) Most of Earth's fresh water is frozen in the polar ice caps.  
**TRUE**      **FALSE**
- g) Rising temperature will cause most salt lakes to get deeper.  
**TRUE**      **FALSE**
- h) Using gasoline as a fuel releases greenhouse gases.  
**TRUE**      **FALSE**

2. Put a check mark (✓) next to the answer that is most correct.

a) All of these are fossil fuels, *except*

- A oil
- B coal
- C natural gas
- D hydrogen gas

b) Where is most of Earth's salt water?

- A in lakes
- B underground
- C in the oceans
- D in polar ice caps



# Conservation: What We Can Do

**T**hree problems threaten saltwater resources: climate change, pollution, and overfishing. There are two ways to approach these problems: Governments can make laws that regulate how people treat the ocean and atmosphere, and individuals can make personal choices that help protect the ocean and atmosphere.



Climate change is related to an increased greenhouse effect which is caused by an increase in the atmospheric concentration of greenhouse gases. An important greenhouse gas that people have some control over is carbon dioxide. This is increasing because of the great increase the use of fossil fuels the 20th and 21st Centuries.

In 1997, representatives of almost 200 countries met in Kyoto, Japan to create a plan to reduce greenhouse gas emissions. One goal of the plan was to reduce greenhouse gas emissions to a level that is 5% lower than it was in 1990. It is not clear how successful this plan was in reducing global climate change, but it is certain there will be more such plans in the future. Whatever the success of such plans turns out to be, the effect will be very gradual. Even if everyone stopped using fossil fuels tomorrow, climate would continue to change, and polar ice would continue to melt into the oceans for years to come.



Individuals can help by using less energy and by using alternative sources of energy. Traveling by almost any other means than by car reduces greenhouse emissions. Choosing appliances, light bulbs, and vehicles that are energy efficient also helps.

**Identify *two* problems threatening ocean water resources.**




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NAME: \_\_\_\_\_



# Conservation: What We Can Do

### 3. Answer the questions in complete sentences.

a) What is the fastest way to increase the population of a fish species that has been greatly overfished?

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b) What is the "Great Pacific Garbage Patch"?

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### Extensions & Applications

Use the graphic organizer to show how partial or complete solutions can be found to the problems caused by the three ocean changes listed. Describe one solution in each empty box.

Change in the Ocean	Describe Something Governments Could Do That Would Help.	Describe Something an Individual Could Do That Would Help.
Rising Sea Level		
Marine Pollution		
Declining Fish Populations		

SAMPLE