

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Student Exploration: Water Pollution

**Vocabulary:** bacterial pollution, nutrient pollution, sediment pollution, toxic pollution, water pollution

**Prior Knowledge Questions** (Do these BEFORE using the Gizmo.)

1. **Water pollution** is the addition of harmful substances to water. Some of these substances are found at home. What household chemicals might be harmful if not disposed of properly?

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2. What are some other causes of water pollution? \_\_\_\_\_

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### Gizmo Warm-up

The *Water Pollution* Gizmo™ will teach you about some of the main kinds of water pollution. On the TYPE tab, under **Types of pollution**, check that **Toxic** is selected. Read the paragraphs on the right and bottom of the Gizmo.

1. What is **toxic pollution**? \_\_\_\_\_

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2. What are some examples of toxic pollutants listed in the Gizmo? \_\_\_\_\_


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3. Can you think of other examples of toxic substances, not listed in the Gizmo? \_\_\_\_\_

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<b>Activity A:</b> <b>Types of water pollution</b>	Get the Gizmo ready: <ul style="list-style-type: none"> <li>Check that the TYPE tab and <b>Toxic</b> pollution are selected.</li> </ul>	
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**Question: What are the main types of water pollution?**

- Read and learn: Besides toxic pollution, the other types of pollution are **sediment pollution**, **nutrient pollution**, and **bacterial pollution**. You have already described toxic pollution on the previous page. Read about the other types, and describe each in your own words.

#### **Sediment pollution**

Description: \_\_\_\_\_

\_\_\_\_\_

Causes: \_\_\_\_\_

\_\_\_\_\_

Consequences: \_\_\_\_\_

#### **Nutrient pollution**

Description: \_\_\_\_\_

\_\_\_\_\_

Causes: \_\_\_\_\_

\_\_\_\_\_

Consequences: \_\_\_\_\_

#### **Bacterial pollution**


Description: \_\_\_\_\_

\_\_\_\_\_

Causes: \_\_\_\_\_

\_\_\_\_\_

Consequences: \_\_\_\_\_

<b>Activity B:</b> <b>Real-world examples</b>	Get the Gizmo ready: <ul style="list-style-type: none"> <li>• Select the EXAMPLE tab.</li> <li>• Check that example 1/12 is selected. (If not, use the arrow buttons to get to example 1/12.)</li> </ul>	
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**Question: What are the real-world causes of water pollution?**

1. **Practice:** For each **Real-world example** presented in the Gizmo, guess which type or types of pollution will result by checking the boxes. When you are ready, click **Check answer** to see if you were right. Read the explanation, and then use your own words to fill in the table.

Example	Pollution type(s)	Explanation
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

(Activity B continued on next page)

**Activity B (continued from previous page)**

2. **Practice:** Classify each of the following examples as toxic, sediment, nutrient, and/or bacterial pollution. Explain your classifications.

A. Logging removes trees from a hill, leaving a barren landscape.

Classification: \_\_\_\_\_

Explanation: \_\_\_\_\_

B. A man washes clothes in a stream using a detergent that contains phosphorus.

Classification: \_\_\_\_\_

Explanation: \_\_\_\_\_

C. At an old gas station, gasoline leaks from an underground storage tank.

Classification: \_\_\_\_\_

Explanation: \_\_\_\_\_

D. At a research lab, a scientist carelessly pours cultures of living microbes down the drain.

Classification: \_\_\_\_\_

Explanation: \_\_\_\_\_

3. **Think and discuss:** Many sources of water pollution are found within the home. What actions can you take to reduce water pollution? \_\_\_\_\_

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