

# What Pollutes the Pond? Page 1

STUDENT RESOURCE **6.2**

ACTIVITY SHEET



Golden Pond has always been the favorite picnic spot for people from Pondville. In the last year, algae have taken over the pond, forming a thick, green mat on the water surface. The pond smells bad now because underwater plants, fish, and other aquatic organisms are dying. Underwater plants do not get the sunlight and carbon dioxide they need. Decomposing algae use up oxygen that fish and other animals need.

Not long before the algae bloom began, the nearby Big C Chemical Company started manufacturing a new plant fertilizer. Big C uses the pond water to cool their machines. The company claims that the fertilizer is harmless to the pond. Other materials are dumped into the pond by the SoClean Laundromat and the Pucker Pickle Factory.

## Your Job

You will be given some samples from the Big C Chemical Company, the SoClean Laundromat, and the Pucker Pickle Factory. You will test those samples and other pollutants that might be in the pond. Your job is to find out which pollutant is causing the algae bloom.

# What Pollutes the Pond? Page 2



## Your Experiment

- 1 Number the cups 1 to 7. Fill each cup with 100 ml of green algae water from your group's aquarium.
- 2 Add 5 mL of a different pollutant to Cups 2 through 7. Follow the chart. Do not add anything to Cup 1.
- 3 After two weeks, decide whether each cup has more algae, the same amount of algae, less algae, or no algae. Record your results in the chart.

Cups	Chemical added	Results
Cup 1: control	no chemical added	
Cup 2: sample from SoClean Laundromat	soapy water	
Cup 3: sample from Big C Chemical Company	plant fertilizer	
Cup 4: sample from Pucker Pickle Factory	vinegar	
Cup 5	sugar solution	
Cup 6	lemon juice	
Cup 7	detritus	

## Analyze Your Results

- 1 Which pollutant is causing the algae bloom?

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- 2 Where is the pollutant coming from?

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