

# Environmental Pollution Worksheet

## Part I. Particulates in the Air

Location of slide	
Observations after 1 week	
Count 1 (particles per square cm)	
Count 2 (particles per square cm)	
Average value of Count 1 and 2 (particles per square cm)	

## Part II. Smoke and Acidic Gases in Air

### Experiment A. Smoke from Match

Initial appearance, color and pH of solution	
Observations after match was placed in plastic jar	

### Experiment B. Outside Air

Initial appearance, color and pH of solution	
Observations after outside air was blown through solution	

## Part III, IV, V. Water Testing

pH	
Phosphate	
Ammonia	

## Questions *(Answer on a separate sheet of paper.)*

### Part I. Particulates in the Air

1. Did your test area have low or high particle pollution? Give examples of possible sources of particle pollution in your test area. Compare your results with your classmates.
2. Which location had the highest number of particulates?
3. Which location had the largest particulates? the smallest?
4. Which location had the most variable types of particulates?

### Part II. Smoke and Acidic Gases in Air

5. What effect does the pH of smoke have on water in the atmosphere?
6. What are some possible sources of acidic gases in air?
7. Discuss possible outcomes of high levels of acidic gases in the atmosphere.

### Part III. pH of Water

8. What could cause the pH of water to be acidic? basic?
9. What are the possible consequences of acidic water? basic water?
10. Was the pH value of your water acceptable? If not, what could be done to correct the pH?

### Part IV. Phosphate in Water

11. Did your water sample have a high or low amount of phosphate?
12. Name and describe a possible outcome of high phosphate levels in lakes.
13. What could be done to help minimize the amount of phosphate ions in water?

### Part V. Ammonia in Water

14. What happens when ammonia is placed in water?
15. According to the values given in the Background section, did your water contain a high amount of ammonia?
16. What effect do pH and temperature have on the amount of ammonia aquatic organisms can tolerate?