

## Air Quality Experiment Assessment

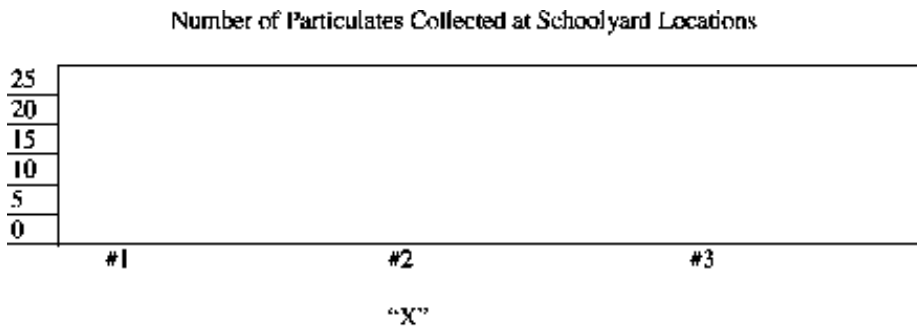
Directions: Circle the letter of the best answer to the following questions.

Use the chart below to answer questions 1 - 5.

?	Parts per square centimeter
Prairie habitat	8 parts/sq. cm
By the street	25 parts/sq. cm
By the school door	9 parts/sq. cm
In the middle of the playground	7 parts/sq. cm

1. What would make the best title for this chart?
  - a) Collection Boards
  - b) My Findings
  - c) Air Particulate Findings
  - d) Ozone Findings
2. What would the best label be for the empty box?
  - a.) Locations
  - b.) Findings
  - c.) Data
  - d.) Schoolyard
3. Which area of the schoolyard would you not recommend for a person with a breathing problem?
  - a.) The playground
  - b.) The front door
  - c.) The prairie
  - d.) The street
4. What is the manipulated (independent) variable in this experiment?
  - a.) The parts per centimeter
  - b.) The Vaseline
  - c.) The location
  - d.) The magnifying lens
5. What is the dependent (responding) variable in this experiment?
  - a.) The parts per centimeter
  - b.) The Vaseline
  - c.) The location
  - d.) The magnifying lens

6. When setting up an air quality experiment, which would be the best hypothesis?
- The street will have the most.
  - If I place a collection card near a high traffic area, I will collect more particulates.
  - If pollution increases, it is difficult for people to breathe.
  - The third collection card will have the largest number of particulates.
7. Why is it important to follow the safety procedure recommended for this experiment?
- To keep the experiment consistent.
  - To keep from getting Vaseline all over.
  - To keep from losing the collection cards.
  - To keep from getting injured.
8. Base on your knowledge of the construction of scientific graphs, which of the below descriptions would best represent the horizontal axis marked by a "X" on the pictured graph?
- Location
  - Parts per centimeter
  - Parts per square centimeter
  - Total particulates



9. Which would be the best conclusion one might expect from the air quality experiment?
- Areas with a high amount of vehicle traffic will have the most particulates.
  - Areas that are hotter will have the most particulates.
  - Areas where there is little human activities will have the most particulates.
  - Areas where there is little wind will have the most particulates.
10. Which of the following would **not** be an acceptable change to produce a new air quality experiment?
- Changing the size of the collection cards.
  - Using a variety of sizes of collection cards.
  - Testing the same location at different elevations.
  - Testing the same location at different times of the year.

## **Answer Key**

1. C
2. A
3. D
4. C
5. A
6. B
7. D
8. A
9. A
10. B