

Part 1: Air Monitoring Video



Name: _____ Date: _____

Directions: Answer the questions below as we watch the video on air monitoring at the Maricopa County Air Quality Department.

1. What is the main job of the Air Monitoring Division?

Are the following statement true or false?

_____ 2. Smoke, dust, and vehicle exhaust are causes of air pollution.

_____ 3. You can always see pollution in the air.

_____ 4. Weather can impact air quality.

_____ 5. Ozone pollution comes directly out of your car.

6. What are two things you can do to help improve air quality?

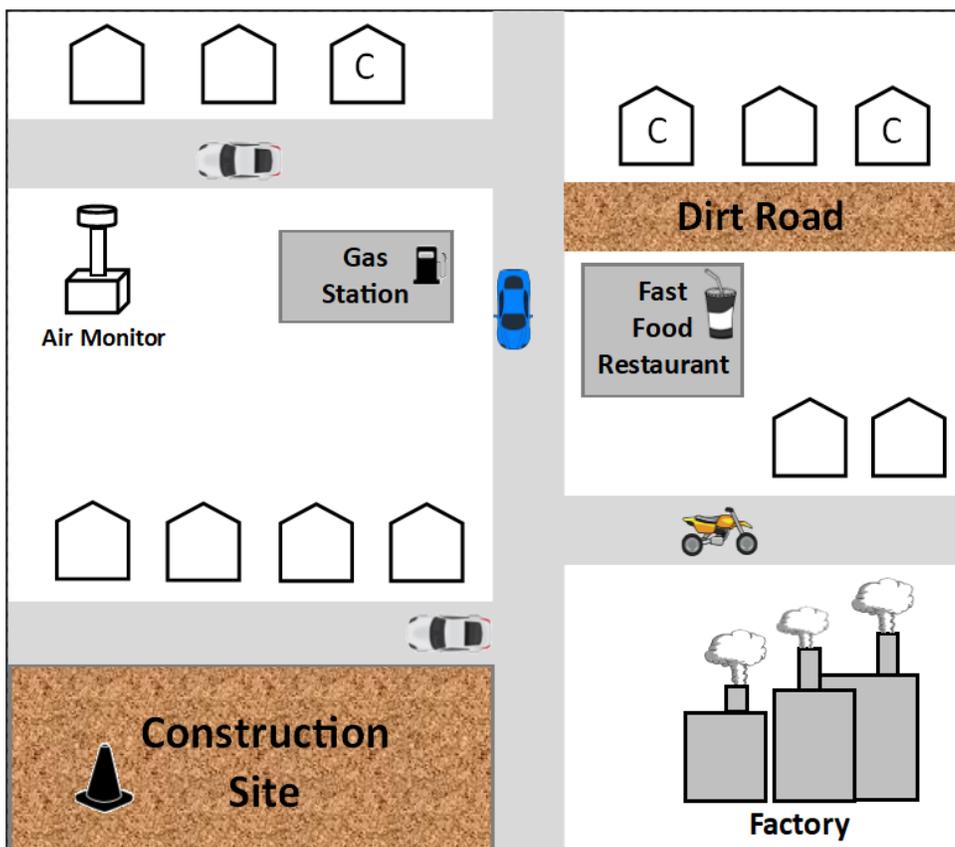
Part 2: Solve the Mystery

Name: _____ Date: _____

Step 1 - Introduction: A new housing development is being built near a factory. Since the neighborhood is still developing, there is a construction site and an unpaved road.

You are an air quality inspector and have received 3 complaints from residents who live in the neighborhood. Their houses have been marked with a "C" on the map. The residents believe that smoke from the factory is causing health problems such as: headaches, coughing, and asthma attacks.

Your job is to figure out if smoke from the factory is making the residents sick, or if something else is responsible!



Step 2 - Observations: Use the map to make observations about the neighborhood.

1. List all possible air pollution sources found on the map. (Hint: sources can be anything that cause smoke, dust, or gasses to go into the air).
2. Find the houses marked with a "C." The residents in these houses complained about health problems and factory smoke. Which air pollution sources are located near these houses?

Part 2: Solve the Mystery (Continued)



Step 3 - Collect and Analyze Data: There is an air monitor in the neighborhood. You look up the air quality data from the monitor and discover the following levels of air pollution:

Type of Pollution	Level
PM 2.5 (Smoke)	Low (Healthy)
PM 10 (Dust)	High (Unhealthy)
Ozone (Gas)	Low (Healthy)

3. Which type of pollution is at a high or unhealthy level?

4. Based on the data, is it likely smoke from the factory is responsible for the health problems in the neighborhood? Use the map to identify other sources that could be causing the health problems.

Step 4 - Claim, Evidence, Reasoning: Which source is responsible for the health problems in the neighborhood? Explain why you chose this source using evidence to support your claim. What test could you perform to prove that you are correct?