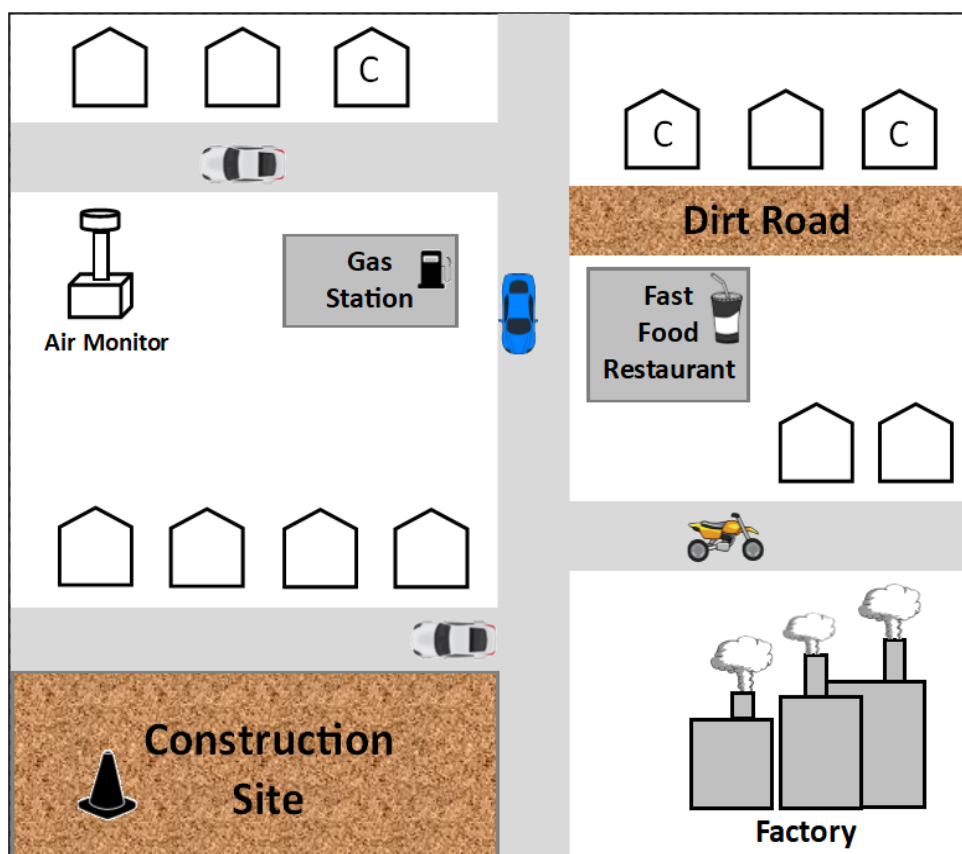Name: _____   Date: _____

Step 1 - The Scenario: A new housing development is being built near a factory. There is a construction site and unpaved road in the neighborhood where new homes are being built. 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 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. List the air pollution sources located near these houses.

Name: _____   Date: _____

Step 3 - Collect and Analyze Data: There is an air monitor in the neighborhood. You review air quality data from the monitor. The air monitor shows levels for the following pollutants:

Pollutant	Level
PM 2.5 (Smoke)	Low (Healthy)
PM 10 (Dust)	High (Unhealthy)
Ozone (Gas)	Low (Healthy)

1. Which pollutant is at a high or unhealthy level?

2. 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 pollutant is responsible for the health problems in the neighborhood? What is the source of this pollution. Explain your answer using evidence to support your claim. What test could you perform to prove that you are correct?