

# Measuring Air Quality Answer Key

1. What causes air pollution in cities such as Los Angeles?  
Air pollution in cities is caused by emissions from buildings and vehicles. Burning materials create emissions that can cause air pollution.
2. Where is the air quality the worst today?  
Student answers will vary depending on the air quality forecast for the nation.
3. What do you think is the cause of that poor air quality?  
Student answers will vary. Students may refer to weather events, forest fires, or pollution from cities.
4. Why are there still smog events when there are pollution control devices on smokestacks and vehicles?  
There are still smog events because there are still pollutants being emitted. Even with pollution control devices, there are some pollutants emitted from power plants and vehicles, and there are natural sources of air pollutants as well.
5. What other natural phenomena could result in poor air quality?  
Other natural phenomena that could lead to poor air quality are forest fires and volcanic eruptions.
6. How can air quality be fine on one day and hazardous on the next?  
Air quality can be fine on one day and hazardous the next because of the way that air flows. Weather systems can push “bad” air out of the area, or stagnant weather systems can leave “bad” air in place, making the air quality worse.
7. Using what you’ve learned so far, is the air quality forecast likely to be better in urban areas or in rural areas?  
rural areas
8. Explain your answer.  
There is a lower concentration of pollutant emitters in rural areas than there is in urban areas. But rural areas are more subject to natural pollutants, such as forest fires. In the case of this picture, the air quality is probably worse in the rural areas with forest fires than in the urban areas without forest fires.
9. How certain are you about your claim based on your explanation?  
Student answers will vary.

## Measuring Air Quality Answer Key, continued

10. Explain what influenced your certainty rating.

Student answers will vary. Scientific evidence includes: vehicles and power plants emit pollutants and there is a higher concentration of vehicles and power plants in urban areas than in rural areas. Students may state that rural areas are more subject to natural polluters whose emissions cannot be limited by pollution control devices.