1. What groups are mentioned in the first paragraph and what questions do they have? 
   Citizens, school officials, and news media. They want to know what they should do to protect themselves, if outdoor events should be cancelled, and how dangerous the smoke really is.

2. Think of another group that isn’t mentioned, what question do you suppose they’d have? 
   Examples: the elderly, individuals with infants, health care givers, coaches, outdoor educators. They may be asking how smoke will impact them, how long it will last, how they can keep it out of their homes, and even whether they should leave the area for a while.

3. What is the purpose of this guide? The purpose is to provide local public health officials with the information they need when wildfire smoke is present, so they can adequately communicate health risks and precautions to the public.

4. Of what is smoke composed? Smoke is composed primarily of carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons and other organic chemicals, nitrogen oxides, trace minerals and several thousand other compounds.

5. Describe particulate matter. Particulate matter is a generic term for particles suspended in the air. They are typically a mixture of solid particles and liquid droplets. Particles from smoke tend to be very small - less than one micrometer in diameter.

6. Describe three health effects of smoke particulate matter? Answers may include: Eye and respiratory tract irritation, reduced lung function, bronchitis, exacerbation of asthma, and premature death. It can cause persistent cough, phlegm, wheezing and difficulty breathing. Particles can also cause respiratory symptoms, transient reductions in lung function, and inflammation in the lungs. These impacts reduce the ability of the lungs to resist irritation from allergens and infection from bacteria and viruses.

7. What are two long-term effects of smoke exposure? Slightly increased risks of cancer or of experiencing other chronic health problems. Epidemiological studies have shown that urban firefighters exposed to smoke over an entire working lifetime have about a three-fold increased risk of developing lung cancer.

8. Now apply your knowledge to this problem:
   a) Access Air Now’s Air Quality Index chart, at this webpage:
      https://www.airnow.gov/index.cfm?action=airnow.mapcenter&mapcenter=1
   b) Click on “Current AQI” tab. AQI stands for Air Quality Index. It incorporates PM and O₃.
c) Find the current unhealthiest area in your state. Use the color key at the bottom of the map to answer: What is the current AQI? Use the table below to describe associated health risks.

d) In the table below, read the cautionary statements for “very unhealthy” air. Describe some challenges that would be associated with implementing the cautionary statements. Challenges could be related to liability, costs, providing medical care or air purifiers, providing indoor locations for events that were planned outside, and possibly even paying for lodging if health-impaired people need to evacuate.