

Lesson 1.1 Check for Understanding Answer Key

1. How can the waste gases from combustion generated in your region affect soil fertility hundreds or thousands of miles away?

Combustion waste gases combine with water in the atmosphere and produce acid rain. When this rain falls hundreds or thousands of miles away, the acid can percolate through soils, remove nutrients, and reduce soil fertility.

2. How will you use your *Laboratory Notebook* and *ESI Notebook*?

The *Laboratory Notebook* is used to record the purposes, materials, procedures, results of experiments and engineering projects, class notes, and answers to conclusion questions. The *ESI Notebook* is used to store APPs for the course, FFA participation, and SAE records.

3. What is an example of a problem that appears locally, nationally, and globally? Provide evidence for your answer.

Answers may include climate change, global warming, acid rain, and pesticide use, or they may come from local issues that extend across the country and globe.

Evidence might include temperature increases, pH levels, and other indicators based on the problem selected.

4. Provide an example of a fact, a problem, and an issue.

“Decreasing air quality” is a problem.

“A particulate count of 10ppm” is a fact.

“How clean should truck exhaust be?” is an issue.

5. How do problems and issues differ?

A problem is anything, matter, or person that is difficult to deal with, solve, or overcome.

An issue is a questionable point or a disputable matter, as between contending parties in legal action.

6. How should an issue be stated?

We state an issue as an unbiased question.

7. What is the process of analyzing an issue?

Research the history and origin of an issue, define the terms describing the issue, and list the risks and benefits.

8. How are the economic factors and social values of an issue different? Give an example.

Economic factors involve the monetary facts used to answer an issue.

Social values depend upon one’s beliefs.