

Chapter 2 Principles of Science and Systems

The importance of this chapter can be underscored by the nature of Environmental Science. Laboratory investigations are the heart of the AP curriculum; therefore, you will develop and perform an experiment in this course. Inquiry-based experiments ask you to observe, hypothesize, analyze, and make conclusions about your data. A good experiment must include the following: an observation-generated hypothesis, a control, a dependent and an independent variable, and data collection. An added bonus would be a statistical method of analysis. Uncertainty and confidence levels may be included in the statistical analysis.

You will also need to know positive and negative feedback loops; you should be able to give examples of each with a clear explanation. While this chapter contains basic information about scientific inquiry, it is a chapter that is reemphasized throughout the year. You must be able to think critically and analyze environmental problems. In addition, you should be able to propose meaningful solutions to these problems.