



*Intended Grade Level: 6–8*

### KEY CONCEPTS:

Critical appraisal skills, compare/contrast, analyzing results of a study, study design, variables, controlled variables, epigenetics, drug abuse

### PROCESS SKILLS UTILIZED IN LESSON:

Communication, inference, prediction, analysis of data, graphing

### PREVIOUS LEARNING ASSUMED:

Basic scientific process skills, graphing skills, sources of bias

## Relevant TEKS

### 6, 7, and 8 Grade Science

6, 7, 8.2 Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:

- (D) construct tables and graphs, using repeated trials and means, to organize data and identify patterns;
- (E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.

6, 7, 8.3 Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:

- (A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;

**6, 7, and 8 Grade Health**

6.4 Health information. The student comprehends ways of researching, accessing, and analyzing health information. The student is expected to:

- (A) list ways to evaluate health products, practices, and services such as sunblocks, dietary aides, and over-the-counter medications; and

- (B) use critical thinking to research and evaluate health information.

6.5 Health behaviors. The student engages in behaviors that reduce health risks throughout the life span. The student is expected to:

- (C) describe chemical dependency and addiction to tobacco, alcohol, and other drugs and substances;

6.10 Personal/interpersonal skills. The student describes healthy ways to communicate consideration and respect for self, family, friends, and others. The student is expected to:

- (G) identify stressors and their impact on the health of the individual and family.

7-8.4 Health information. The student knows how to research, access, analyze, and use health information. The student is expected to:

- (A) use critical thinking to analyze and use health information such as interpreting media messages;
- (B) develop evaluation criteria for health information;

7-8.5 Health behaviors. The student engages in behaviors that reduce health risks throughout the life span. The student is expected to:

- (H) explain the impact of chemical dependency and addiction to tobacco, alcohol, drugs and other substances;
- (I) relate medicine and other drug use to communicable disease, prenatal health, health problems in later life, and other adverse consequences;

**Key Words for Web Page:** Critical appraisal skills, compare/contrast, analyzing results of a study, study design, variables, controlled variables, graphing, epigenetics, cocaine, genes, chromosomes, gene regulation