
Chapter 2 Review

1 "Does installing sulfur scrubbers on coal-fired power plants in Ohio reduce the amount of acid rain in the Adirondack Mountains?" is an example of the _____ step in the scientific process.

- a. perform an experiment
- b. scientific theory
- c. ask a question
- d. collect data
- e. accept or reject the hypothesis

correct: *c*

2 A scientific theory such as the Theory of Evolution has been well-tested and is widely accepted.

- True
- False

correct: *true*

3 A scientific _____ cannot be disproved using accurate data.

- a. hypothesis, theory or law
- b. hypothesis
- c. law
- d. theory
- e. theory or law

correct: *c*

4 The conclusion by the Intergovernmental Panel on Climate Change that burning of fossil fuels by humans has resulted in atmospheric warming between 1957 and 2007 is an example of:

- a. unreliable science.
- b. frontier science.
- c. None of these choices.
- d. reliable science.
- e. tentative science.

correct: *d*

5 Two atoms with the same atomic number but different mass numbers are an example of different:

- a. pHs.
- b. compounds.
- c. ions.
- d. molecules.
- e. isotopes.

correct: *e*

6 The burning of gasoline in an automobile engine is an example of:

- a. a chemical change.
- b. radioactive decay.
- c. nuclear fusion.
- d. a physical change.
- e. nuclear fission.

correct: *a*

7 The fact that trash can never really be thrown away is an example of:

- a. nuclear changes such as radioactive decay.
- b. the atomic theory of chemistry.
- c. the law of conservation of matter.
- d. the cell theory of biology.
- e. high-quality vs. low-quality matter.

correct: *c*

8 Which of the following is an example of kinetic energy?

- a. wind
- b. flowing water
- c. ultraviolet radiation
- d. all of these choices
- e. electricity

correct: *d*

9 There is more high-quality energy stored in the water of the Pacific Ocean than in the petroleum deposits of Saudi Arabia.

- True
- False

correct: *false*

10 Judge the following sentence according to the criteria given below: There is no such thing as an energy shortage BECAUSE the first law of thermodynamics states that energy cannot be created or destroyed.

- a. The assertion and the reason are both correct, and the reason is valid.
- b. The assertion and the reason are both correct, but the reason is invalid.
- c. The assertion is correct but the reason is incorrect.
- d. The assertion is incorrect but the reason is correct.
- e. Both the assertion and the reason are incorrect.

correct: *d*