

FCAT Questions: Atoms, Elements, Molecules Module
<http://fcit.usf.edu/florida/teacher/science/mod3/index.html>
Grades 6-8 Teacher Version

A physical change is a change of matter from one form to another without a change in chemical properties.

1. Which of the following is not an example of a physical change?
 - a. Freezing water
 - b. Glass breaking
 - c. Rusting metal
 - d. Bending a nail

Answer: (c) Rusting metal

A chemical change happens when one or more substances change into an entirely new substance with different properties.

2. Observing different substances over a period of time, what would be the best indicator of a chemical change?
 - a. The volume of the substance has changed.
 - b. The mass of the substance has changed.
 - c. The substance has changed from liquid to solid
 - d. The properties of a substance are changed.

Answer: (d) The properties of a substance are changed

3. When measuring the volume of a liquid, what tool should be used?
 - a. A scale
 - b. A thermometer
 - c. A graduated cylinder
 - d. A beaker

Answer: (c) a graduated cylinder

4. When astronauts collect materials from the moon to return to Earth why is the mass of the objects not a concern when re-entering the Earth's atmosphere?
 - a. The mass of an object does not change.
 - b. The shuttle storage areas are very large.
 - c. The mass of an object is the same as its weight.
 - d. The mass will decrease with gravity.

Answer: (a) The mass of an object does not change.

5. What is best used when separating a mixture?
- A graduated cylinder
 - A filter
 - A balance scale
 - A magnet

Answer: (b) A filter

6. Matter that contains two or more substances is called a mixture. Mixtures are also divided into two categories, *homogeneous* meaning the mixture has the same definite properties throughout and *heterogeneous* meaning the mixture is not uniform and can be separated. Which of the following would be an example of a heterogeneous mixture?
- Burning paper
 - Margarine
 - Trail Mix
 - Mercury

Answer: (c) Trail Mix

7. Which for the following would be an example of a homogeneous mixture?
- Burning paper
 - Margarine
 - Trail Mix
 - Mercury

Answer: (b) Margarine