

Lesson Outline

Ch 10 lesson 3 Outline

LESSON 3

Physical Changes**A. Physical Changes**

1. In a(n) _____, the matter's identity stays the same.
 - a. A physical change involves a change in size, shape, form,
or _____.
 - b. Although the matter's identity stays the same, its _____
might change.
2. When food is chewed, matter undergoes a physical change in
_____ and size.
3. Matter undergoes a physical change when it changes from one
_____ to another.
 - a. A change in state involves a change in the _____ of the
particles.
 - b. The energy of particles changes when _____ energy is
_____ or removed.
4. When thermal energy is added to particles, they move _____
and temperature _____.
 - a. When particles move faster, they can overcome the _____
forces that hold them together.
 - b. When enough energy is added to a solid for it to change to a liquid, the solid has
reached its _____.
 - c. When enough energy is added to a liquid for it to change to a gas, the liquid has
reached its _____.
 - d. Sometimes, when energy is added to a solid, it undergoes _____,
in which it changes directly from a solid to a(n) _____
without first becoming a(n) _____.
5. When thermal energy is removed from particles, they move
_____ and temperature _____.
 - a. When particles move slower, they are drawn closer together by
_____ forces between them.

Lesson Outline continued

- b. When enough energy is removed from a gas for it to change to a liquid, the gas _____.
- c. When enough energy is removed from a liquid for it to change to a solid, the liquid _____.
- d. If a gas changes directly to a solid without first becoming a liquid, the gas undergoes _____.

6. Melting and _____ are reverse processes, as are _____ and boiling and _____ and deposition.

7. _____, during which one substance evenly mixes with another substance, is also a physical change.

8. Some types of physical changes are _____, such as when a solid changes to a liquid and then the liquid changes back into a(n) _____.

B. Conservation of Mass

1. The particles that are present before a physical change are also _____ after the change.

2. Therefore, _____ also is the same before and after a physical change.