

Humpty Dumpty →

Physical: Cracked  
Chemical: Fried

Name \_\_\_\_\_

## Changes Of Matter (p. 59 – 64)

### I. Physical Changes

1. Define the term physical change.

(Paper DEMO)

Physical Change – affects one or more physical properties of a substance without changing the identity of the substance

2. List three examples of physical changes.

1. Dissolving sugar in water
2. Cutting hair
3. Melting ice

3. Physical changes occur as long as the atomic structure of the substance does not change.

Circle One :

True

False

4. How is dissolving one substance in another substance an example of a physical change?

- The molecules of the sugar do not change

5. Define the term solution. (Not in the book.)

Wiper Fluid,  
Tap Water →

Solution – homogenous mixture of particles so small that they cannot be seen with a microscope

5. What is the difference between a solute and a solvent? (Not in the book.)

Solute – substance that is dissolved (Kool-Aid + sugar)

Solvent – substance performing the dissolving (water)

### II. Chemical Changes

1. Define the term chemical change.

Chemical Change – when one or more substances are changed into entirely new substances with different properties

2. List three examples of chemical changes.

1. Leaves changing colors / Decomposition (rotten eggs)
2. Alka-Selzer tablets / Baking a cake
3. Statue of Liberty / Food Digestion

## 3. New substances form when chemical changes occur.

Circle One :  True  False

## 4. Circle the letters of examples of evidence for a chemical change.

- p. 62
- a. a change in color (Leaves, Copper Bracelet, Burnt Objects)
- b. a filter trapping particles
- c. the production of a gas (Vinegar + Baking Soda, Baking Bread → CO<sub>2</sub> released)
- d. the formation of a solid precipitate (from two liquids)  
(Cottage Cheese, Yogurt)

## 5. Chemical changes are capable of being reversed.

Circle One :  True  FalseIII. Breaking Down Mixtures & Compounds

## 1. How are mixtures and compounds broken down?

Mixtures : Physical changesCompounds : Chemical changes

## 2. List three ways of separating mixtures.

- p. 63
1. Simple separation (Onions on pizza) ← Lindsey
2. Distillation (Boil + evaporate)
3. Centrifuge (rapid spinning)

## 3. List three ways to break down compounds.

1. Heating substances
2. Electric currents
3. Simple interactions (Opening a pop)  
↳ CO<sub>2</sub> bubble release