

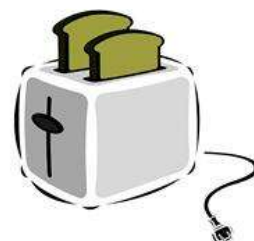
## Physical &amp; Chemical Changes

## TWO WAYS TO CHANGE

A melting ice sculpture...a spectacular bonfire...a cake baking in the oven...a milkshake in the making...an explosion...all of these involve changes in matter. Some are physical changes (changes in shape, color, or state of matter) and others are chemical changes (changes involving chemical reactions). Which are which? **For each change described below, write P or physical change or C for chemical change. Be ready to explain your choices.**



- \_\_\_\_\_ 1. glass breaking
- \_\_\_\_\_ 2. hammering wood together to build a playhouse
- \_\_\_\_\_ 3. a rusting bicycle
- \_\_\_\_\_ 4. melting butter for popcorn
- \_\_\_\_\_ 5. glassblower creating sculptures out of glass
- \_\_\_\_\_ 6. freezing chocolate-covered bananas
- \_\_\_\_\_ 7. separating sand from gravel
- \_\_\_\_\_ 8. spoiling food
- \_\_\_\_\_ 9. burning toast
- \_\_\_\_\_ 10. making salt water to gargle for a sore throat
- \_\_\_\_\_ 11. cream being whipped
- \_\_\_\_\_ 12. water evaporating from a pond
- \_\_\_\_\_ 13. cutting grass
- \_\_\_\_\_ 14. burning leaves
- \_\_\_\_\_ 15. humidifier putting moisture into the air
- \_\_\_\_\_ 16. corroding metal
- \_\_\_\_\_ 17. bleaching your hair
- \_\_\_\_\_ 18. fireworks exploding
- \_\_\_\_\_ 19. squeezing oranges to get orange juice
- \_\_\_\_\_ 20. frying an egg
- \_\_\_\_\_ 21. pouring milk on your oatmeal



## Classification

Directions: In the blank on the left, label each of the following as physical property (PP), chemical property (CP), physical change (PC), or chemical change (CC).

\_\_\_\_\_ 22. sharpening a pencil

\_\_\_\_\_ 27. drawing copper into wire

\_\_\_\_\_ 23. flammability of a substance

\_\_\_\_\_ 28. corrosion of bicycle frame (rusting)

\_\_\_\_\_ 24. size of an object

\_\_\_\_\_ 29. fragrance of a flower

\_\_\_\_\_ 25. inflating a tire

\_\_\_\_\_ 30. formation of water when hydrogen burns

\_\_\_\_\_ 26. freezing point

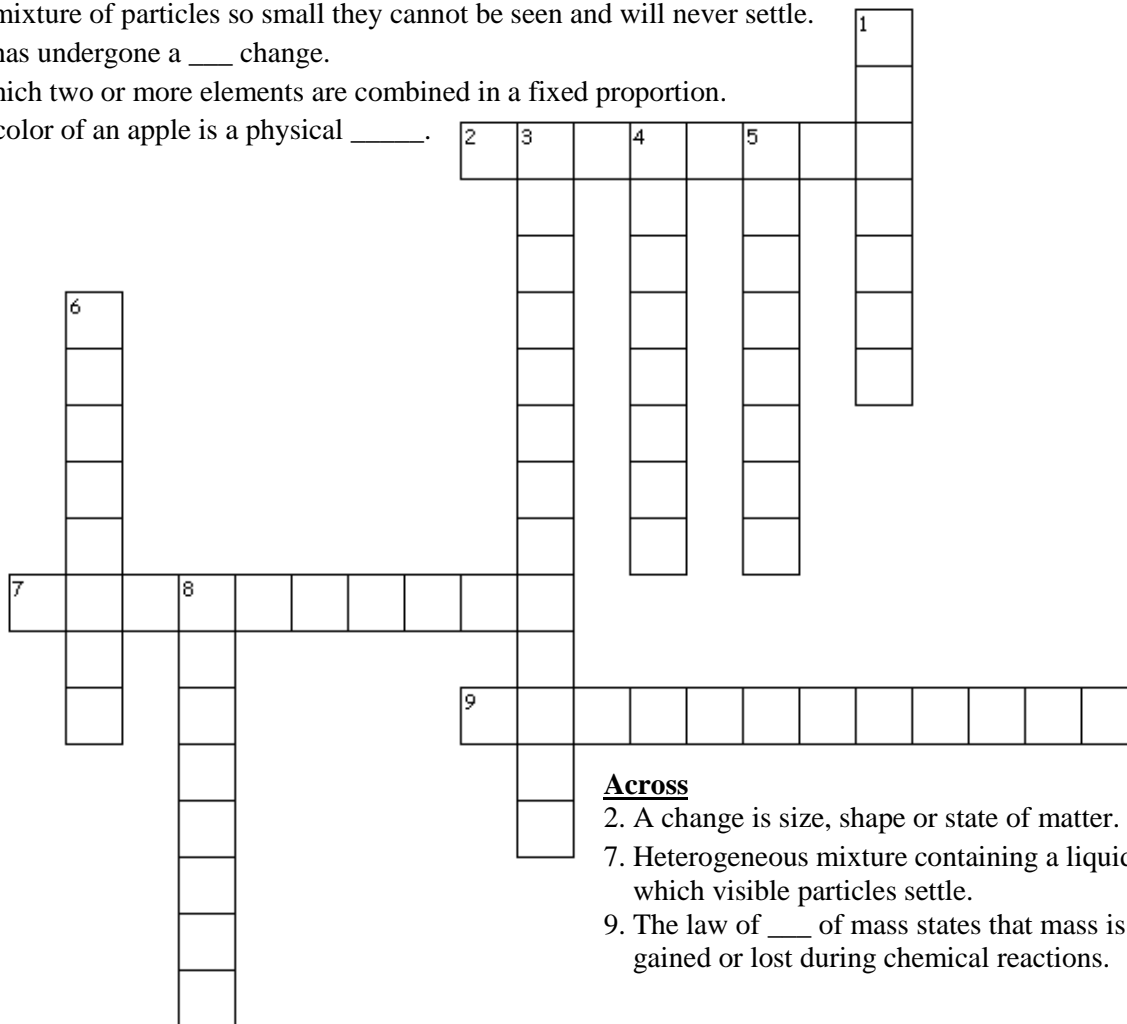
\_\_\_\_\_ 31. boiling water

## Vocabulary Review

Directions: Use the clues below to complete the crossword puzzle.

### Down

1. Heterogeneous mixture with larger particles that never settle.
3. A mixture in which different materials can be easily distinguished.
4. Homogeneous mixture of particles so small they cannot be seen and will never settle.
5. A burnt object has undergone a \_\_\_ change.
6. Substance in which two or more elements are combined in a fixed proportion.
8. Describing the color of an apple is a physical \_\_\_\_\_.



### Across

2. A change is size, shape or state of matter.
7. Heterogeneous mixture containing a liquid in which visible particles settle.
9. The law of \_\_\_ of mass states that mass is not gained or lost during chemical reactions.