

# PHYSICAL VS. CHEMICAL PROPERTIES

Name \_\_\_\_\_

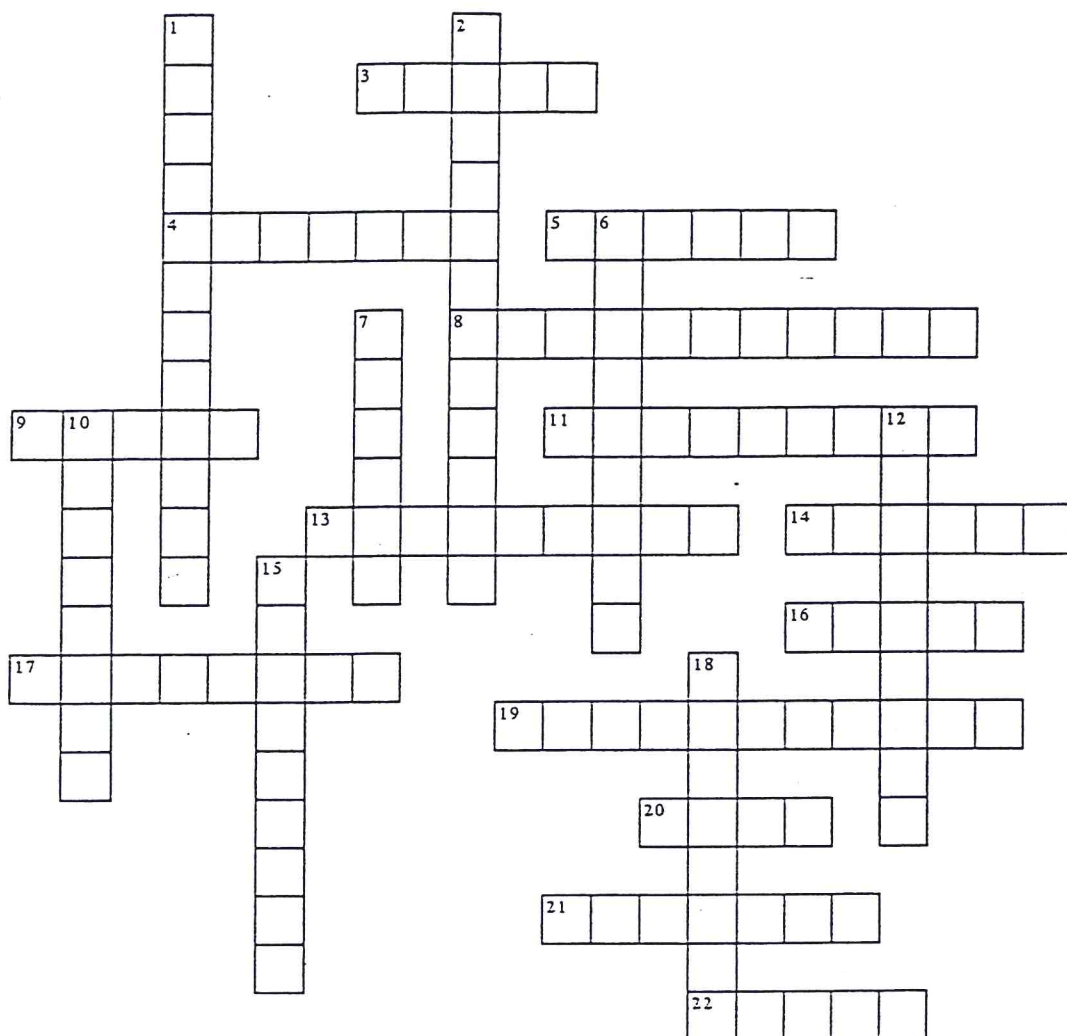
A physical property is observed with the senses and can be determined without destroying the object. For example, color, shape, mass, length, density, specific heat and odor are all examples of physical properties.

A chemical property indicates how a substance reacts with something else. When a chemical property is observed, the original substance is changed into a different substance. For example, the ability of iron to rust is a chemical property. The iron has reacted with oxygen and the original iron metal is gone. It is now iron oxide, a new substance. All chemical changes include physical changes.

Classify the following properties as either chemical or physical by putting a check in the appropriate column.

	<b>Physical Property</b>	<b>Chemical Property</b>
1. red color		
2. density		
3. flammability		
4. solubility		
5. reacts with acid to form hydrogen		
6. supports combustion		
7. bitter taste		
8. melting point		
9. reacts with water to form a gas		
10. reacts with a base to form water		
11. hardness		
12. boiling point		
13. can neutralize a base		
14. luster		
15. odor		

## Matter and its Properties



### **Across**

3. solid, liquid, or gas
4. gritty, smooth, waxy, etc.
5. the metric unit for time
8. how easily an object breaks or shatters
9. sweet, sour, salty, or bitter
11. the kind of property that does not depend on sample size
13. the ability to be drawn into a wire
14. bright and shiny, or dull
16. putrid, flowery, or choking, for example
17. measured by scratching different substances
19. the kind of observation that describes the nature of something (no measurement)
20. crystalline or amorphous

21. clear, cloudy, or opaque
22. the metric unit for length

### **Down**

1. the kind of observation that involves a measurement
2. the ability to be hammered into a sheet
6. the kind of property that depends on sample size
7. red, for example
10. the agreement between a measurement and the true value
12. the resistance of a liquid to flowing
15. the agreement between different measurements made the same way
18. the metric unit for mass