

PHYSICAL PROPERTIES & CHANGES

Part 1 - Matching

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|----------------------|---|
| 1. Physical property | a. how easily a substance dissolves in another substance |
| 2. Solubility | b. an objects attraction to another object (magnetic, electric) |
| 3. Density | c. an observable characteristic without modifying the object. |
| 4. Physical change | d. a change in state (solid, liquid, gas) of an object |
| 5. Polarity | e. how tightly of loosely atoms are packed in a substance. |

Part 2 - Ways matter physically changes

(<http://chemistry.about.com/od/matter/a/10-Physical-Change-Examples.htm>)

Physical changes involve states of matter and energy. A state of matter can be a solid, a liquid or a gas. No new substance is created during a physical change, although the matter takes a different form. The size, shape, and color of matter may change. Also, physical changes occur when substances are mixed, but don't chemically react. One way to identify a physical change is that such a changes may be reversible, especially phase changes. For example, if you freeze an ice cube (solid), you can melt it into water again (liquid). This is a list of 10 examples of physical changes.

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|----------------------------------|-------------------------------|-------------------------|--------------------------|
| 2. crushing a can | 2. melting an ice cube | 3. boiling water | 4. mixing sand and water |
| 6. breaking a glass | 6. dissolving sugar and water | 7. shredding paper | 8. chopping wood |
| 10. mixing red and green marbles | | 10. sublimating dry ice | |

- List 5 actions to physically change matter: _____
- True or False: Physical changes *may* be reversible. Circle: True False
- True or False: A new substance is created during a physical change. Circle: True False
- Think of 1 example (other than ice cube to water and back) that can be classified as a physical change.

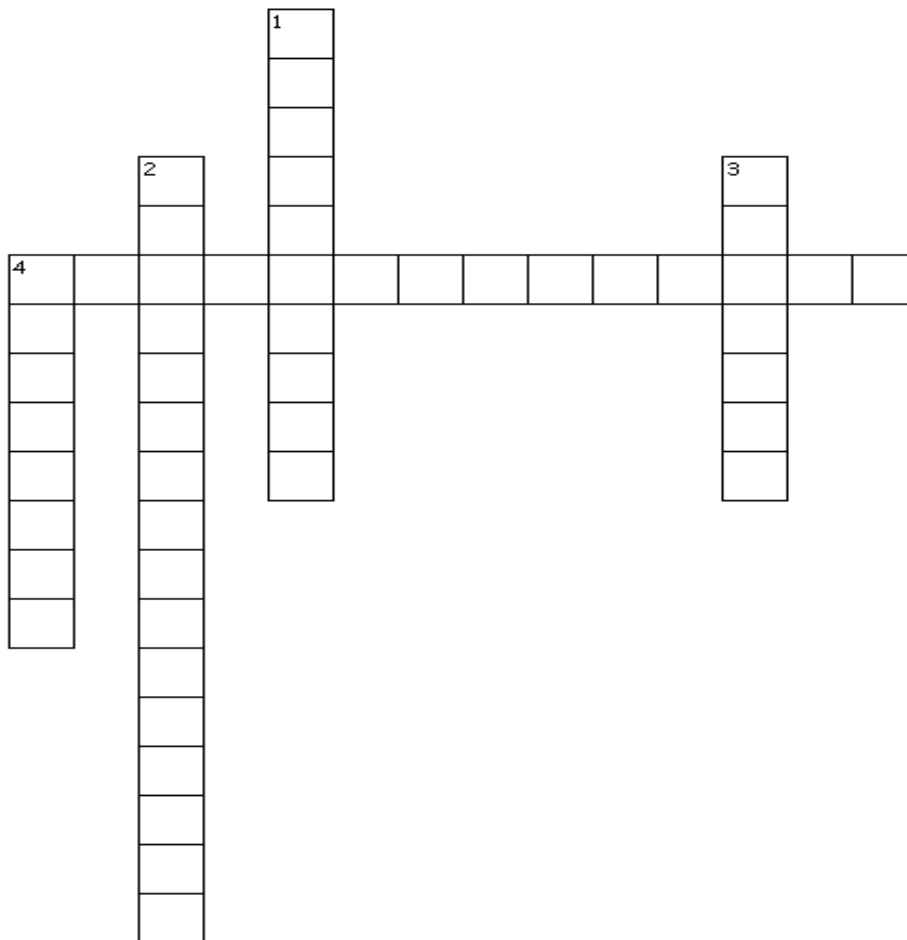
Part 3 - Sentence completion

- We tested the _____ of sugar by observing if it could dissolve in water after 5 minutes.
- Color, size, shape, smell and texture are all examples of _____.
- Depending on an objects' _____ that object will sink or float in water.
- We witnessed _____ when the magnet attracted iron filings in our mixture lab.
- An object undergoes a _____ when it is melted, burnt, mixed, crushed, boiled, etc.

Part 4 - Real Life Application

	Object	Physical Properties	1 way you could physically change it?
1.			
2.			
3.			
4.			
5.			

Part 5 - Crossword Puzzle



Across

4. modifying the object while retaining the substance's atomic makeup

Down

1. an object dissolving in another object

2. observed without changing the object

3. how tightly or loosely atoms are packed together

4. attraction towards a particular direction