

PHYSICAL PROPERTY

1. observed with senses
2. determined without destroying matter

CHEMICAL PROPERTY

1. indicates how a substance reacts with something else
2. matter will be changed into a new substance after the reaction

PART A.

On the 1st line - Identify the following as a chemical (C) or physical property (P):

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|-------------------------------|--------------------------|
| ___ 1. blue color | ___ 8. melting point |
| ___ 2. density | ___ 9. reacts with water |
| ___ 3. flammability (burns) | ___ 10. hardness |
| ___ 4. solubility (dissolves) | ___ 11. boiling point |
| ___ 5. reacts with acid | ___ 12. luster |
| ___ 6. supports combustion | ___ 13. viscosity |
| ___ 7. ductility | ___ 14. Toxicity |

Identify the following as physical (P) or chemical (C) changes.

PHYSICAL CHANGE

1. a change in size, shape, or state
2. no new substance is formed

CHEMICAL CHANGE

1. a change in the physical and chemical properties
2. a new substance is formed

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|--|------------------------------------|
| ___ 1. NaCl (Table Salt) dissolves in water. | ___ 9. Milk sours. |
| ___ 2. Ag (Silver) tarnishes. | ___ 10. Sugar dissolves in water. |
| ___ 3. An apple is cut. | ___ 11. Wood rots. |
| ___ 4. Heat changes H ₂ O to steam. | ___ 12. Pancakes cook. |
| ___ 5. Baking soda reacts to vinegar. | ___ 13. Grass grows. |
| ___ 6. Fe (Iron) rusts. | ___ 14. A tire is inflated. |
| ___ 7. Alcohol evaporates . | ___ 15. Food is digested. |
| ___ 8. Ice melts. | ___ 16. Paper towel absorbs water. |

PART B.**Part C: True (T) or False (F)**

1.		Changing the size and shapes of pieces of wood would be a chemical change.
2.		In a physical change, the makeup of matter is changed.
3.		Evaporation occurs when liquid water changes into a gas.
4.		Evaporation is a physical change.
5.		Burning wood is a physical change.
6.		Combining hydrogen and oxygen to make water is a physical change.
7.		Breaking up concrete is a physical change.
8.		Sand being washed out to sea from the beach is a chemical change.
9.		When ice cream melts, a chemical change occurs.
10.		Acid rain damaging a marble statue is a physical change.

Part C

Read each scenario. Decide whether a physical or chemical change has occurred and give evidence for your decision. The first one has been done for you to use as an example.

	Scenario	Physical or Chemical Change?	Evidence...
1.	Umm! A student removes a loaf of bread hot from the oven. The student cuts a slice off the loaf and spreads butter on it.	Physical	No change in substances. No unexpected color change, temperature change or gas given off.
2.	Your friend decides to toast a piece of bread, but leaves it in the toaster too long. The bread is black and the kitchen is full of smoke.		
3.	You forgot to dry the bread knife when you washed it and reddish brown spots appeared on it.		
4.	You blow dry your wet hair.		
5.	In baking biscuits and other quick breads, the baking powder reacts to release carbon dioxide bubbles. The carbon dioxide bubbles cause the dough to rise.		
6.	You take out your best silver spoons and notice that they are very dull and have some black spots.		
7.	A straight piece of wire is coiled to form a spring.		
8.	Food color is dropped into water to give it color.		
9.	Chewing food to break it down into smaller particles represents a _____ change, but the changing of starch into sugars by enzymes in the digestive system represents a _____ change.		
10.	In a fireworks show, the fireworks explode giving off heat and light.		