

Physical and Chemical Changes Review

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

- P 1. NaCl (Table Salt) dissolves in water.
C 2. Ag (Silver) tarnishes.
P 3. An apple is cut.
P 4. Heat changes H₂O to steam.
C 5. Baking soda reacts to vinegar.
C 6. Fe (Iron) rusts.
P 7. Alcohol evaporates.
P 8. Ice melts.

- C 9. Milk sours.
P 10. Sugar dissolves in water.
C 11. Wood rots.
C 12. Pancakes cook.
C 13. Grass grows.
P 14. A tire is inflated.
C 15. Food is digested.
P 16. Paper towel absorbs water.

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.	Mmm! 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.	Chem	New gases/color change
3.	You forgot to dry the bread knife when you washed it and reddish brown spots appeared on it.	Chem	Color change
4.	You blow dry your wet hair.	Phy	evaporation
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.	Chem	- Gas evolution
6.	You take out your best silver spoons and notice that they are very dull and have some black spots.	Chem	- Color change
7.	A straight piece of wire is coiled to form a spring.	Phy	- Phy. manipulation
8.	Food color is dropped into water to give it color.	Phy	- No New Subst.
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.	Phy. Chem	- Phy manipulation - New substances Color change
10.	In a fireworks show, the fireworks explode giving off heat and light.	Chem	- energy - color Gases