

# Physical & Chemical Changes

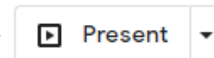
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Lesson & Notes

Go to the following presentation: <https://bit.ly/2IQURPC>

(Start the presentation; watch the video and take the notes in the space below – include examples)



Once in the presentation, click "present" at the top right of the document.

## Physical Change:

**Evidence of a Physical Change:**

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Chemical Change:

### Evidence of a Chemical Change:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Part A: Fill in the blanks: Chemical (C) or Physical Changes (P)

- |                                                 |                                     |
|-------------------------------------------------|-------------------------------------|
| 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 <sub>2</sub> 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

Can you recognize the chemical and physical changes that happen all around us? If you change the way something looks, but haven't made a new substance, a **physical change (P)** has occurred. If the substance has been changed into another substance, a **chemical change (C)** has occurred.

1.	An ice cube is placed in the sun. Later there is a puddle of water. Later still the puddle is gone.
2.	Two chemicals are mixed together and a gas is produced.
3.	A bicycle changes color as it rusts.
4.	A solid is crushed to a powder.
5.	Two substances are mixed and light is produced.
6.	A piece of ice melts and reacts with sodium.
7.	Mixing salt and pepper.
8.	A marshmallow is toasted over a campfire.
9.	A marshmallow is cut in half.

## 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 (P) or Chemical (C) Change?	Evidence...
1.	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.	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.		

**Part D: 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.	When ice cream melts, a chemical change occurs.
9.	Acid rain damaging a marble statue is a physical change.