

Worksheet on Chemical vs. Physical Properties and Changes

<u>Vocabulary Word</u>	<u>Definition</u>
physical property	Characteristic you can observe without changing the identity of the substance
physical change	Change in which the identity of the substance does not change
chemical property	Characteristic you can observe only during a chemical change
chemical change	Change in which chemical bonds are broken and reformed; New substances are made

Part One: Physical or chemical property? Fill in the chart using the vocabulary words or phrases provided.

boiling point	ability to rust	melting point	brittleness	reactivity with vinegar
elasticity	flammability	density	transparency	ductility

Each word is used once. Define the word when done!

<u>Chemical Property</u>	<u>Definition</u>
flammability	the ability to burn
ability to rust	reacts with oxygen to produce rust
reactivity with vinegar	reacts with vinegar

<u>Physical Property</u>	<u>Definition</u>
transparency	the property of letting light pass through something
boiling point	temperature when a substance goes from liquid to gas
elasticity	tendency to return to original shape after being stretched or compressed
melting point	temperature when a substance goes from solid to liquid
density	mass per unit of volume
brittleness	tendency to break or crack
ductility	ability to be pulled into wires

Part Two: Physical or chemical change? Indicate with a "P" or "C" which type of change is taking place.

1. <u>P</u> glass breaking	10. <u>P</u> mixing salt and water
2. <u>P</u> hammering wood together	11. <u>P</u> mixing oil and water
3. <u>C</u> a rusting bicycle	12. <u>P</u> water evaporating
4. <u>P</u> melting butter	13. <u>P</u> cutting grass
5. <u>P</u> separate sand from gravel	14. <u>C</u> burning leaves
6. <u>C</u> bleaching your hair	15. <u>C</u> fireworks exploding
7. <u>C</u> frying an egg	16. <u>P</u> cutting your hair
8. <u>P</u> squeeze oranges for juice	17. <u>P</u> crushing a can
9. <u>P</u> melting ice	18. <u>P</u> boiling water