

Name _____

Date _____

PHYSICAL & CHEMICAL CHANGE

In a physical change, the original substance still exists; it has only changed in form (i.e. size, shape, state of matter, etc). In addition, a physical change is always reversible - you can get back what you started with! In a chemical change, however, a completely new substance is produced - you can never get back what you started with! Energy (heat) changes typically accompany chemical changes, but can sometimes occur in physical changes as well. Do not assume a chemical change is taking place just because energy is involved! Think: Do I have a totally different substance than I started with? If so, this is always a chemical change.

Read the following statements. Classify the following as being a physical or chemical change.

PHYSICAL CHANGE	CHEMICAL CHANGE	STATEMENTS
		An ice cube melts on a hot summer day.
		Green grass making its own food.
		Hydrochloric acid reacts with potassium hydroxide to produce salt, water, and heat.
		Pancakes cook on a griddle.
		non-metals do not conduct heat or electricity well
		On a cold fall morning, water vapor in the atmosphere condenses into dew on the grass.
		A tire is deflated (the air is let out).
		Potassium chlorate decomposes to potassium chloride and oxygen gas.
		When placed in water, a sodium pellet catches on fire as hydrogen gas is given off and sodium hydroxide forms.
		Wood rots out in the rain.
		An iron nail rusts when left out in the rain.
		A pellet of sodium is sliced in two.
		Food is digested in the stomach
		Milk sours after being kept past the expiration date.
		A pellet of sodium is sliced in two.
		Sugar dissolves in water.
		Sodium hydroxide dissolves in water.