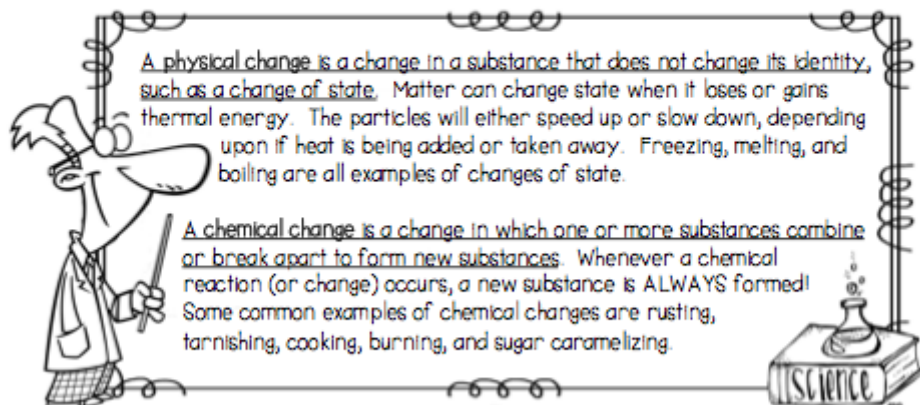


# Introduction to Physical and Chemical Changes



A physical change is a change in a substance that does not change its identity, such as a change of state. Matter can change state when it loses or gains thermal energy. The particles will either speed up or slow down, depending upon if heat is being added or taken away. Freezing, melting, and boiling are all examples of changes of state.

A chemical change is a change in which one or more substances combine or break apart to form new substances. Whenever a chemical reaction (or change) occurs, a new substance is ALWAYS formed! Some common examples of chemical changes are rusting, tarnishing, cooking, burning, and sugar caramelizing.

## True or False

If the answer is true, write "true" on the line. If the answer is false, replace the underlined word or phrase with one that will make the sentence correct. Write the new word(s) on the line.

- \_\_\_\_\_ A substance that undergoes a physical change, like melting, is still the same substance.
- \_\_\_\_\_ During a chemical change, atoms are lost or gained to make the new substance(s).
- \_\_\_\_\_ Dissolving, bending, crushing, breaking, and chopping are all examples of physical changes.
- \_\_\_\_\_ A change of state, such as boiling, is an example of a chemical change.
- \_\_\_\_\_ Most physical and chemical changes in matter include a change in energy.
- \_\_\_\_\_ When hydrogen peroxide is poured on skin, it breaks down into water and oxygen gas. This is an example of a chemical change.