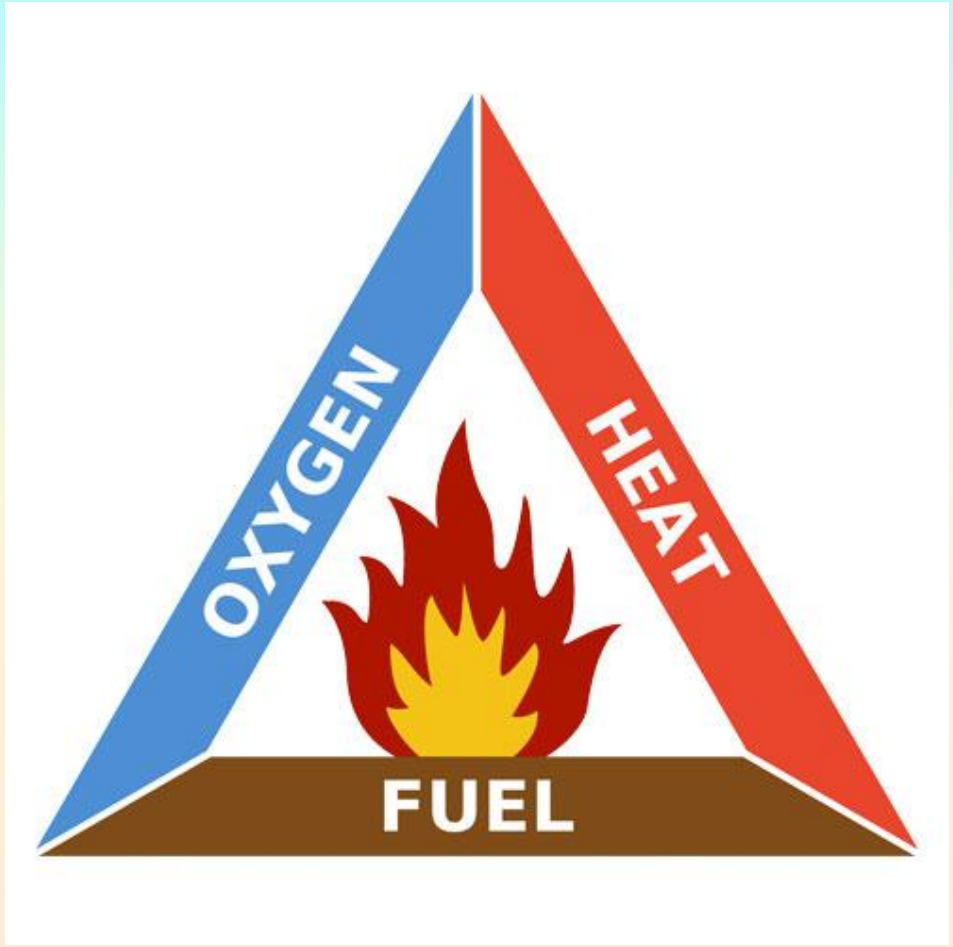
LESSON 5

CHANGES IN MATTER IN THE PRESENCE OR ABSENCE OF OXYGEN

From the previous lesson, you have learned that matter has two proper ties – physical and chemical. Both of these properties have effects on matter. However, this lesson will focus on the chemical property of matter.



The fire triangle represents the three important things needed for combustion to occur.

The presence or absence of oxygen has various effects on matter. Among the common one that you readily see are **combustion** and **rusting.**

The diagram on the left is called **Fire Triangle.** It shows that the three things are needed for fire to occur. In order for fire to occur, there should be heat, fuel and oxygen. A fire occurs when the three elements are present in the right amount. The fire will continue is flame provided that there is continuous supply of these three elements. Suppose, oxygen will be removed from the diagram, what you think will happen to the fire produced?

RUSTING is caused by the reaction of iron with oxygen present in the air. This kind of reaction is slower than the rate of combustion. The amount of rust formed in an iron depends on the moisture and humidity of the surroundings.

Another example affected by the presence of oxygen are fruits. Have you noticed that when your mother cuts fruits and vegetables, some of them change in color? For example, when an apple is cut, the fleshy part of the fruit changes into brown. This is because the oxygen present in the air reacts with the chemicals present in the fleshy part of the apple.

The change in color of the inner fleshy part of the apple is due to its exposure to oxygen. The same phenomena could also be observed in potato and other fruits and vegetables.