



## *What's the Matter with My Orange?* *Background Information*



# *Decomposition*

### *What is it?*

Decomposition is the process by which matter is broken down into nitrogen and other basic elements by bacteria, fungi, and other consumers. Decomposition is a chemical change since the properties of the object have changed and new substances (nitrogen, carbon, etc.) are produced.

### *How does it relate to this activity?*

Oranges in sealed containers cannot release their moisture to the atmosphere. This moisture, along with air and the energy of the orange, provide an excellent place for the growth of bacteria and fungi. The bacteria and fungi soften the skin and eventually break through to get the energy stored in the orange. Over time the bacteria and fungi will convert the orange into nitrogen, alcohol, and other matter produced through their waste products.

### *Did you know?*

All organic matter (plants, animals, plant and animal products, etc.) will eventually decompose. As a result, nitrogen, water, and other matter will be cycled back to the Earth.