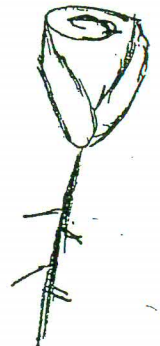


F. Photosynthesis Drawing:

**STUDENTS, PLEASE READ AND FOLLOW THE DIRECTIONS FOR THIS ACTIVITY!!! After completing your drawing, please answer the questions below in the corner of your picture IN COMPLETE SENTENCES (use a separate sheet if you need to)**

- Have them draw a sun, cloud, a plant and an animal.
- 
- Draw an arrow from the sun to the plant. On the arrow put LIGHT/ENERGY.
- Draw an arrow from the cloud to the plant. On the arrow put WATER.
- Draw an arrow from the plant to the animal. On the arrow write OXYGEN (O<sub>2</sub>). ✓
- Draw an arrow from the animal to the plant. On the arrow write CARBON DIOXIDE (CO<sub>2</sub>).
- Make a small box on the plant somewhere and draw an arrow to somewhere on the page. This is illustrating the fact we are going into the plant.
- Next to the arrow, draw a simple plant cell ( p.94 in book), label this CELL.
- In the cell draw the organelle chloroplast. Label this CHLOROPLAST.
- Next to the chloroplast draw one circle.
- Draw an arrow from the chloroplast to the circle.
- In the circle write the formula C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>. Above this formula write GLUCOSE/ENERGY.
- On this page in the corner have students summarize photosynthesis: pgs. 332-335  
pgs. 94-97

- What is the equation for photosynthesis?
- What are the reactants (goes in the formula) for photosynthesis?
- What are the products (made from the formula) for photosynthesis?
- Where does photosynthesis take place?
- What is respiration?
- What are the reactants for respiration?
- What are the products for respiration?
- What is the relationship between photosynthesis and cell respiration

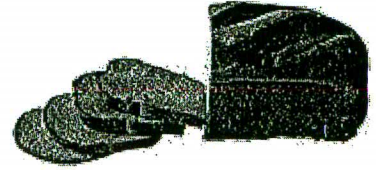


## Plants and Life on Earth

Plants help the environment (and us!) in many different ways:

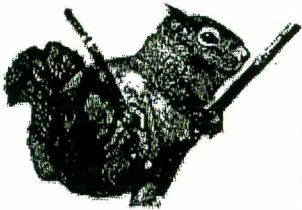
### Plants make food

Plants are the only organisms that can convert light energy from the sun into food. And plants produce ALL of the food that animals, including people, eat. Even meat. The animals that give us meat, such as chickens and cows, eat grass, oats, corn, or some other plants.



### Plants make oxygen

One of the materials that plants produce as they make food is oxygen gas. This oxygen gas, which is an important part of the air, is the gas that plants and animals must have in order to stay alive. When people breathe, it is the oxygen that we take out of the air to keep our cells and bodies alive. All of the oxygen available for living organisms comes from plants.



### Plants provide habitats for animals

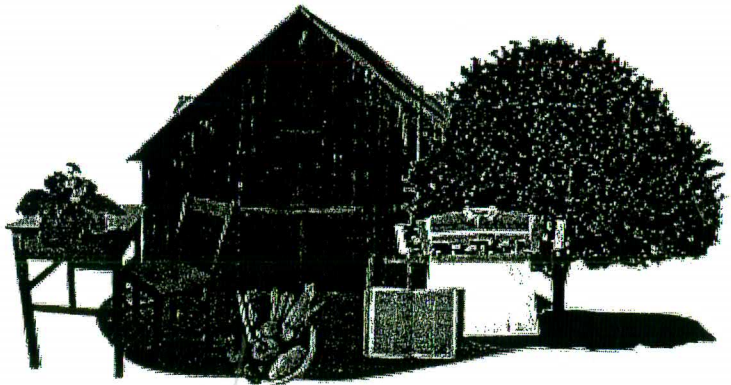
Plants are the primary habitat for thousands of other organisms. Animals live in, on, or under plants. Plants provide shelter and safety for animals. Plants also provide a place for animals to find other food. As a habitat, plants alter the climate. On a small scale, plants provide shade, help moderate the temperature, and protect animals from the wind. On a larger scale, such as in tropical rainforests, plants actually change the rainfall patterns over large areas of the earth's surface.

### Plants help make and preserve soil

In the forest and the prairie, the roots of plants help hold the soil together. This reduces erosion and helps conserve the soil. Plants also help make soil. Soil is made up of lots of particles of rocks which are broken down into very small pieces. When plants die, their decomposed remains are added to the soil. This helps to make the soil rich with nutrients.

### Plants provide useful products for people

Many plants are important sources of products that people use, including food, fibers (for cloth), and medicines. Plants also help provide some of our energy needs. In some parts of the world, wood is the primary fuel used by people to cook their meals and heat their homes. Many of the other types of fuel we use today, such as coal, natural gas, and gasoline, were made from plants that lived millions of years ago.



### Plants beautify

Plants, because of their beauty, are important elements of our human world. When we build houses and other buildings, we never think the job is done until we have planted trees, shrubs, and flowers to make what we have built much nicer.