Plants and Animals
Content Background Document

1. Introduction

Many of us come into contact with plants and animals in our daily lives. From houseplants and pets to exotic creatures at zoos and a wide array of plants at botanical gardens, we have opportunities to see many of the different plants and animals around us.

Plants and animals are living things that have several needs that must be met for them to live and grow. We feed our pets and water our houseplants to help them stay alive. What other needs do plants and animals have? How do they meet those needs? In what ways are the needs of plants and animals similar and different?

The background information that follows will challenge you to broaden and deepen your understanding of plants and animals. This document has been written to support and further your own content learning about the needs of plants and animals, how these living things meet their needs, and the cellular processes that support these organisms. The goal is for you to develop deeper conceptual understandings of these ideas so you'll be able to more effectively teach elementary students about plants and animals.

This content was written with you, the teacher, in mind. The subject matter is tied to the science lessons you'll be teaching, but the concepts are presented at a higher level to equip you with the tools and background you'll need to guide student learning. After all, teachers should know more about the science content than their students!

2. Characteristics of Living Things

Most people have a sense of what is living and nonliving. If you were asked to determine whether a rock, a dog, a tree, and water are living or nonliving, you'd probably say that the rock and water aren't living, but the tree and the dog are. When people are asked to identify the characteristics of living things, however, the answers vary. All forms of life, from microscopic bacteria to humans to elephants, share certain characteristics.

1. *Living things change over time.* Living things, or organisms, are able to adapt to their environments. This characteristic describes what happens with *populations* rather than individuals. The fossils of many of the organisms from long ago look different from organisms today. Changes can lead to amazing diversity among organisms and sometimes lead to new species. This evolution of species is one characteristic of living things.
2. *Living things maintain an internal balance.* Bacteria are able to change their production of certain chemicals in response to their environments. Plants can respond to humidity by opening or closing tiny holes in the underside of their leaves. Animals breathe more quickly and deeply after running. This ability to regulate the body in response to external stimuli is another characteristic of living things.
3. *Living things show organization.* All living things are highly organized systems of matter. Only a few types of atoms make up living things, such as carbon, hydrogen, nitrogen,

oxygen, phosphorus, and sulfur. These atoms are held together in molecules that make up cells.

4. *Living things require energy to build their structures and carry out specific functions.* Both plants and animals need energy to grow and maintain their bodies.
5. *Living things can reproduce*. All of the instructions for life are encoded in DNA, a complex molecule found in living cells. DNA provides instructions for building and maintaining the cells and bodies of every organism, from bacteria to plants to humans. In addition, all living things can transfer those instructions—through DNA—to the next generation during reproduction.
6. *Living things can develop*. It's important for young organisms to be able to grow as they assemble new tissues. As a living thing grows, its internal organization of various tissues may change. Living things also have cells that specialize in certain tasks so that the body can divide the labor. The ability to grow and specialize is called *development*, a characteristic of living things.
7. *Living things interact with their environments*. All living things depend on other organisms to live. If you envision a wooded area, you may think of several examples of interdependency. Plants provide shelter and food for birds. Rabbits create burrows and feed on berries from plants. A fox finds food for her young in the area, while an insect drinks water collected on a leaf. This interdependency among living things and the environment is another a characteristic of living things.

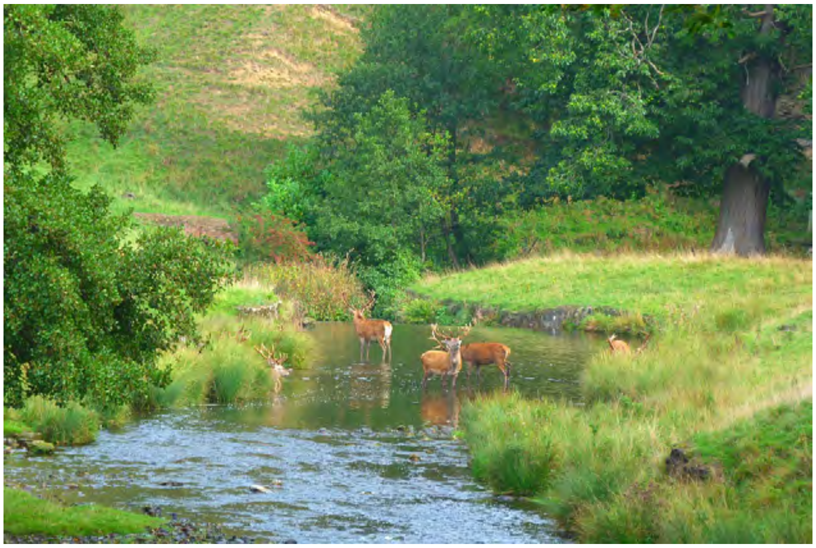
Among living things, there is a great deal of diversity. The process biologists use to organize and describe living things is called *biological organization*. Classification plays an important role in this process as scientists try to understand life. Classification helps scientists divide living things into groups that can be studied and also provides unique names for each level of organization or life. Three domains comprise the most general level of life. One domain is *Bacteria*, which include single-celled organisms without organelles that are membrane bound and carry out specific functions. A second domain is *Archea*, which are also single-celled organisms but are genetically different from bacteria. The third domain is *Eukarya*, which includes plants, animals (including humans), and fungi, among other organisms. There are many levels of organization under the domains, including kingdoms, phyla, families, and species. Organisms with common characteristics are grouped together, and those with the most shared characteristics fit into the lowest level of organization—species. The way scientists classify organisms has changed over time and will likely continue to change as they identify new organisms and collect more data about those already identified.

In the lessons, we focus on plants and animals. Although this focus simplifies the classification process, it helps students work with and identify organisms they might already be familiar with. Historically, from the days of Aristotle to the mid-1800s, this was also the way scientists classified living things. By the middle of the nineteenth century, however, some scientists began to question whether single-celled organisms and fungi really fit well with plants or animals. Today we consider plants multicellular organisms that typically produce their own food. They also have rigid cell walls that contain cellulose. Animals are multicellular organisms as well, but they feed on plants and other animals, have specialized systems, and are able to respond rapidly to stimuli.

As we think about plants and animals in this reading, we'll focus first on where they live, what they need to survive and grow, and how they meet their needs. We'll also consider some of the specialized processes that take place to meet these needs.

3. Environments

An *environment* refers to all of the living and nonliving things that surround an organism. It might be described as a home for a living thing. It includes both living things and nonliving things, such as air, soil, water, and temperature. The environment surrounds and affects an organism. Plants and animals can only survive in environments that meet their needs. A single object, such as a rock, is not an environment because it doesn't contain living and nonliving things, and it can't meet the needs of an organism. A meadow can be considered an environment because it has living things, such as mice, rabbits, deer, grass, shrubs, and other organisms, as well as nonliving things, such as ponds and air, that help meet the needs of the living things (see figure 1). The interactions between the living (biotic) and nonliving (abiotic) parts of an environment allow living things to survive and grow.



Photograph by Greg Thompson

Figure 1. An environment contains living (biotic) and nonliving (abiotic) parts. This meadow is an example of an environment. We can see living things, such as the deer, grass, and shrubs, as well as nonliving things, such as the water. Interactions between the biotic and abiotic parts of an environment help meet the needs of the living things that live there so they can survive and grow.

STOP AND THINK

What are some other examples of environments? What are the biotic and abiotic parts of the environment? How do the parts interact with one another?

4. The Needs of Living Things

The environment helps living things meet their needs. But what are those needs? Do plants and for animals have the same needs? As it turns out, plants and animals have some of the same needs, but they also have some different needs. In this section, we'll learn more about these needs. As you read, keep track of similarities and differences among the needs of plants and animals.

4.1. Living Things Need Water

Both plants and animals need water. Water is important for many of the processes that take place in our cells and are necessary for life. For example, living things use water for photosynthesis, cellular respiration, and digestion. We'll take a closer look at these processes in later sections. Without water, both plants and animals die, which makes this one of the most important needs of living things.

Water is one of the primary components of animals' bodies. The various fluids in the body are made up of different solutes, or substances, dissolved in water. For example, water is the primary component in blood, digestive fluid, the fluid surrounding our brains and spinal columns, and the fluid in our eyes. Although the solutes that are dissolved to make up these fluids differ, water is the foundational basis for all of them. Our tissues, such as muscle tissue, and our cells also contain high levels of fluid. Although different animals require varying amounts of water, all animals must have some water to live.

Animals have different ways of acquiring water from the environment. The typical way terrestrial animals take in water is through their mouths. This is accomplished primarily through drinking, but animals also consume some water through the foods they eat. Other animals take in water across their gills, such as fish, or through their skin, such as worms and some types of lizards.

Like animals, the amount of water plants need varies from species to species, but all plants must have some water to carry out their life functions. Although water isn't food for a plant, it's important for the process of making food (photosynthesis). Photosynthesis is carried out in the green cells of a plant's leaves and stems, so it's essential that water reaches these cells.

Water is also important for the process of transpiration. In transpiration, water moves from the roots of a plant to the leaves and other aerial parts (parts exposed to the air). Water vapor is evaporated through small holes on the underside of the leaves called *stomata*. Transpiration is essential for three main functions. First, it helps plants transport minerals and sugars (food) throughout their bodies. Water acts as a solvent for both minerals and sugars. Minerals move from the roots of a plant to the leaves through tubes called *xylem*. Sugars move to every cell in the plant through tubes called *phloem* (see figure 2). Because sugars are food for plants, it's important that they reach every cell.

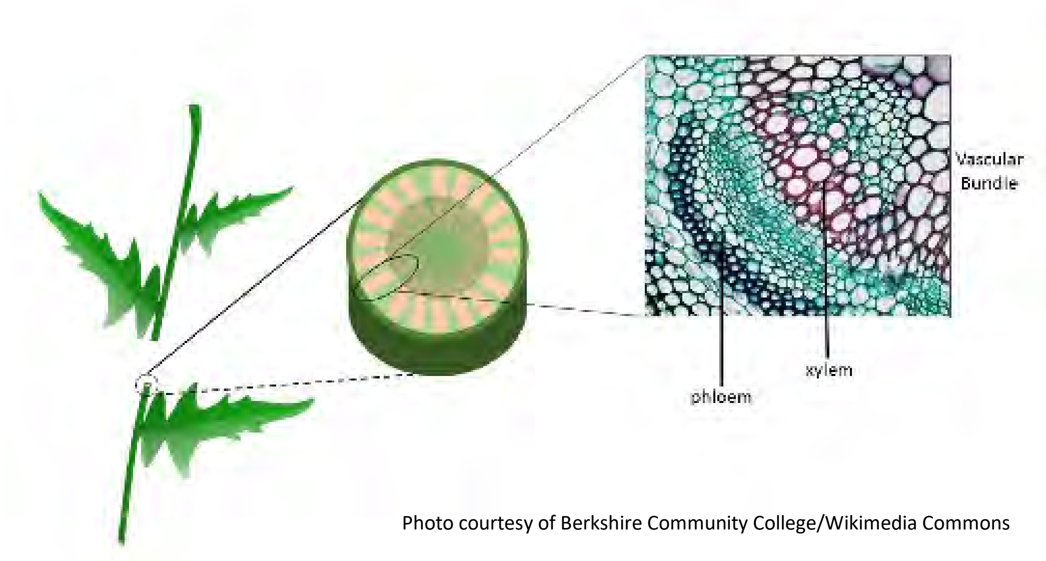


Figure 2. Xylem and phloem in a plant. Xylem and phloem are tubes that transport materials, such as minerals and sugars, to different parts of a plant.

The second main function of transpiration is cooling. When water reaches a plant's leaves, cooling takes place through evaporation. This is similar to the way sweat cools human bodies. Finally, transpiration helps a plant stand upright by maintaining turgor, or hydrostatic, pressure. *Turgor pressure* refers to the force that water in plant cells exerts against the cell walls and membranes. Without adequate water, a plant lacks turgor pressure and begins to wilt. But standing upright with it leaves facing the Sun enables a plant to absorb light energy and make food.

4.2. Living Things Need Air

Animals and plants also need air to live. The air in Earth's atmosphere is composed of

- 78% nitrogen,
- 21% oxygen,
- 0.9% argon, and
- 0.03% carbon dioxide.

Animals have different ways of transporting oxygen from the air into their bodies. Some animals have lungs and breathe in oxygen-rich air through their noses or mouths. This is the way many animals, such as dogs, cats, cows, and humans, get their oxygen. Some animals, such as fish, have gills that allow them to take in dissolved oxygen in water. Still other animals obtain oxygen through their skin or small holes in their bodies. Earthworms and amphibians can make use of oxygen absorbed through their moist skin. Insects, such as grasshoppers and praying mantises, have a *tracheal respiratory system* that enables oxygen to enter their bodies through small holes called *spiracles.* These holes connect to tubes that carry the oxygen throughout their bodies (see figure 3).

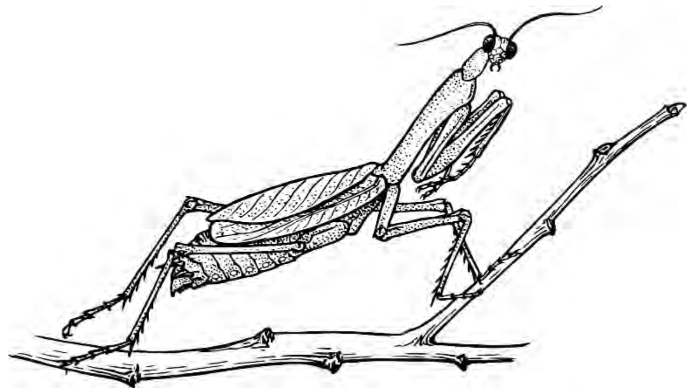
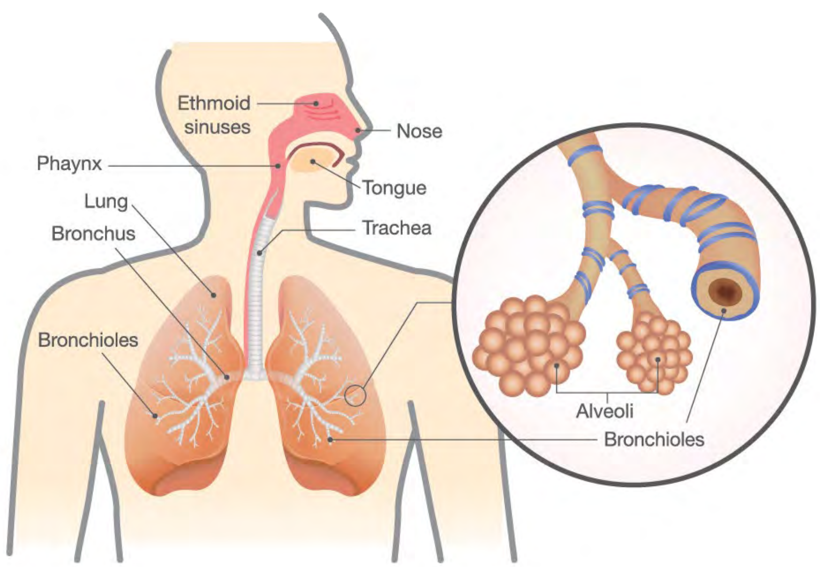


Photo courtesy of Pearson Scott Foresman/Wikimedia Commons

Figure 3. Tracheal respiratory system. Insects have small holes called *spiracles* along their bodies that take in oxygen. The spiracles connect to tubes that carry oxygen to different parts of their bodies.

Regardless of how animals take in oxygen, it must reach each and every cell so their bodies can carry out essential life functions and processes. How does oxygen reach every cell of the body? In many animals, a circulatory system works in tandem with a respiratory system to transport oxygen throughout their bodies. Many people think that oxygen is taken into our lungs, where it turns into carbon dioxide that is immediately exhaled from our lungs. But if oxygen never moved out of our lungs to all of our cells, we would die!

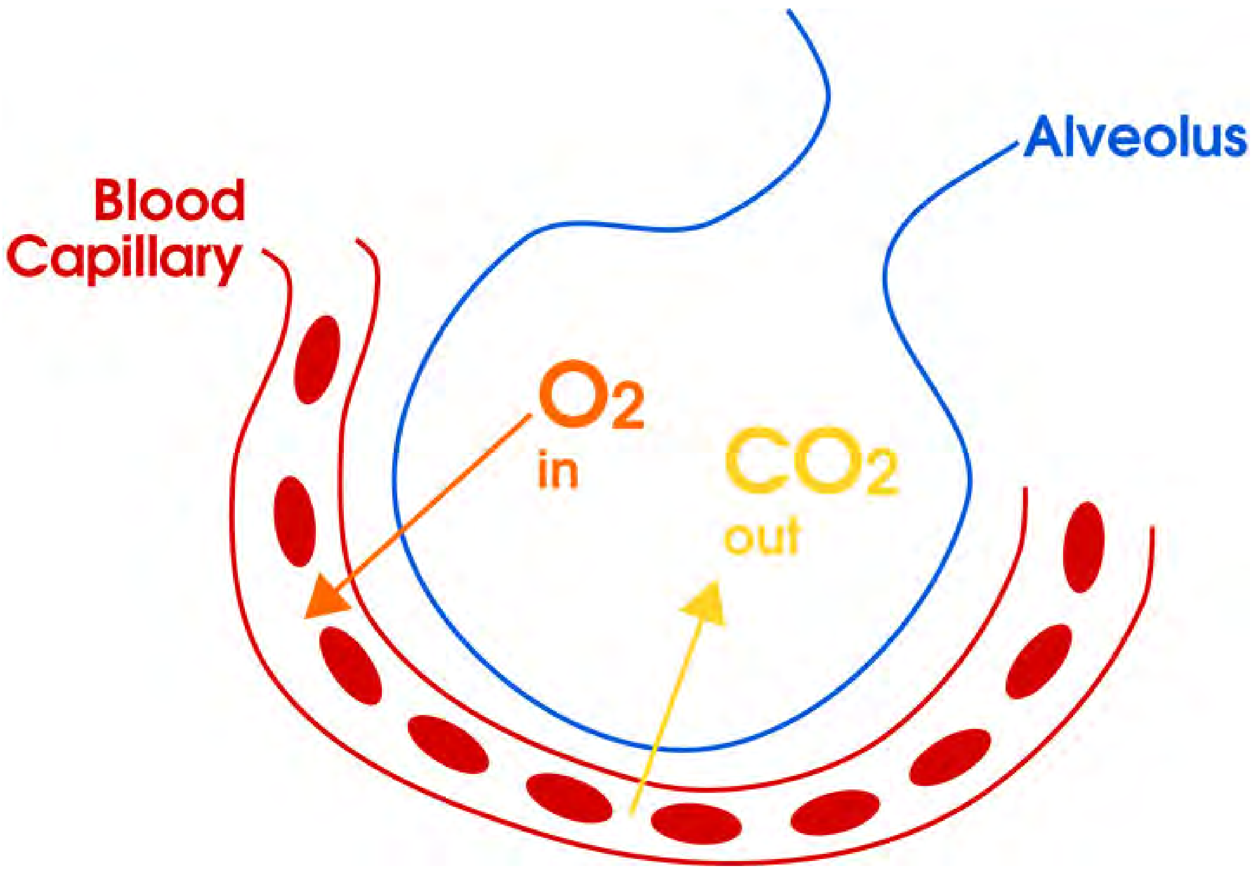
As oxygen is brought into our lungs, it moves through tubes called *bronchi* and *bronchioles* and finally reaches small sacs called *alveoli* (see figure 4).



Courtesy of Stock.Adobe.com

Figure 4. The respiratory system. Air containing oxygen first enters the body through the respiratory system. The oxygen moves through tubes called *bronchi* and *bronchioles* and into tiny sacs called *alveoli*.

Each alveolus is surrounded by very tiny blood vessels called *capillaries*. Figure 5 shows oxygen moving out of the respiratory system through the walls of the alveoli and into the circulatory system, where capillaries transport the oxygen to every cell throughout the body. Cells then use the oxygen to carry out processes, such as cellular respiration. (We'll discuss this process in more detail later.) The waste product from cellular respiration is carbon dioxide, which moves out of the cells into the capillaries and through the bloodstream to the alveoli. There, the carbon dioxide moves out of the circulatory system into the respiratory system through the alveoli, and we breathe it out of our lungs into the air.



Courtesy of domdomegg/Wikimedia Commons

Figure 5. Oxygen and carbon dioxide can pass through the walls of the alveoli. At any given time, oxygen is moving from the alveoli into the bloodstream. Simultaneously, carbon dioxide moves from the bloodstream into the alveoli.

Plants also need air to live, and they use carbon dioxide in the air to make food (photosynthesis). Most people think that plants need *only* carbon dioxide, and they release oxygen into the environment as a waste product. Some people also think that plants give off oxygen as a kind of service to help oxygen-breathing animals. But in fact, plants need oxygen just as much as animals do. Without oxygen, they wouldn't be able to break down food molecules (carbohydrates, fats, and proteins) and release the energy they need to live and grow.

Plants absorb air in different ways. For example, plants take in air through small holes or pores on the underside of their leaves called *stomata*. *Guard cells* open or close these holes to either receive air or keep it from entering (see figure 6). Plant roots are also able to take in oxygen from the surrounding soil. This can only occur near the top of the root where the cells have small projections called *root hairs* that increase the surface area of the cells and are surrounded by air pockets and soil. As long as the soil isn't waterlogged, oxygen can diffuse into the root hairs. Oxygen is also important for plants that live in water, including those that don't have leaves or roots. These plants are able to absorb dissolved oxygen from the water.

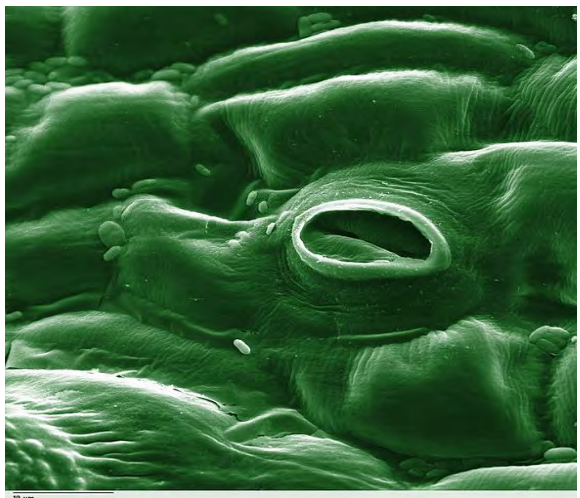


Photo courtesy of Photohound/Wikimedia Commons

Figure 6. *Stomata* are holes in plant leaves that allow air to enter the plant. *Guard cells* surround each stoma (the singular form of *stomata*) to control whether the pore is open or closed.

4.3. Living Things Need Food

All living things use food matter in two different but complementary ways: for growth and energy. First, living things use the *matter* from food to build body parts, including everything from cell nuclei to hormones to blood cells to brains. Think of food molecules—matter—as the building blocks organisms use to grow. Organisms also use matter to heal wounds throughout their bodies.

The body breaks down food molecules into atoms, which are rearranged into different kinds of molecules the body needs to live and grow. Our bodies use food to make many specialized components that perform different functions.

Living things also use food for *energy*. Food itself isn't energy; it contains stored chemical energy. The amount of energy in food is represented as the number of Calories. Once food is broken down, it can be stored as sugars. The sugars are part of cellular respiration, a process that releases energy and makes it available to the body for a variety of activities. In animals, these activities include internal and external movement, breathing, digestion, growth, and sleep. Plants also use energy for such functions as movement, digestion, growth, and the transport of materials through their bodies.

One common misconception is that energy is a physical entity. Although scientists talk about organisms using energy, energy isn't an object we can isolate from cells. We know about the energy in a system by taking measurements and using those values in calculations. Another misconception is that energy can be created or used up (destroyed). But the total amount of energy in the universe is constant. Energy changes forms, such as when the stored chemical energy in food is transformed into usable energy for the body, but it is never created or destroyed.

STOP AND THINK

What is similar about how plants and animals use food?

4.4. How Animals Get Their Food

All plants and animals need food to live and grow, but they get their food in very different ways. Animals must obtain food from their environment. Some animals, called *herbivores*, eat plants; some animals, called *carnivores*, eat other animals; some animals eat microorganisms; and some animals, called *omnivores*, eat a combination of plants and animals. If an animal lives in an environment that doesn't meet its specific food needs, it will die.

Like water and air, food must reach every cell in an animal's body. When an animal consumes food, the food is digested, or broken down, into smaller pieces. This is important because large pieces of food can't enter microscopic cells. In humans and many other animals, the process of breaking down food begins with chewing. Chewing increases the surface area of the food so that the chemical reactions involved in digestion can take place more quickly. But chewing alone isn't enough. No matter how long an animal chews its food, the macromolecules of proteins, fats, and carbohydrates are still intact. Cells can't use these molecules in their intact form, so they must be broken down even further. Digestive enzymes carry out the chemical digestion necessary to accomplish this. Amylase in the mouth, pepsin in the stomach, and amylases, proteases, and lipases in the small intestine break down food molecules as they move through the digestive system. Proteins are broken down into amino acids, carbohydrates are reduced to simple sugars, and lipids (fats) are broken down into simple lipids. These tiny molecules in the small intestine can then be absorbed into the bloodstream and carried to cells all over the body.

Why is this so important? A common student misconception is that the digestive system operates by itself: You take food into your mouth and get rid of wastes through urine and feces. In one end and out the other! But this view misses an essential connection between the digestive system and the circulatory system. The process of digestion enables the body to move tiny molecules of food from the digestive tract into the bloodstream and throughout the body. This is what allows every cell in the body to get the matter and energy it needs to function.

STOP AND THINK

How does oxygen reach a cell in your toe?
How does food get to that same cell?

Once inside the cells, these small molecules can be broken down even further into atoms, or they can be used to make new substances for cell growth and repair. The reactions that break down molecules tend to release energy, while those that build substances tend to require energy. At the same time, the amount of food matter stays the same but can be converted from one form to another.

For example, a person could eat a steak with a lot of protein molecules. These proteins might come from an animal's muscle tissue. Through the process of digestion, the protein molecules are broken down into amino acids, which may then be used to build other kinds of proteins that can help repair an injury or wound in the body. The number of atoms in the steak protein is exactly the same as the number of atoms in the final repair proteins; the atoms are just rearranged into different forms. This is important because proteins are often considered the workhorses of the body. The amino acids from the steak are now part of a variety of proteins. Some proteins are hormones or chemicals that regulate the activity of cells. Some proteins make up muscle tissue, which allows for movement. Other proteins are enzymes, which catalyze reactions in the body. Some proteins, such as hemoglobin in the blood, transport materials throughout the body. Some proteins are antibodies that help guard against disease. These are just a few examples of the important roles proteins play in the body.

All animals must eat to obtain the energy and matter they need to live and grow. They may eat plants, other animals, microorganisms, or a combination of these sources, but their food always comes from their environment.

4.5. How Plants Get Their Food

Like animals, plants also need food to get the energy they need to function and the matter they need to grow and repair their bodies. But how do plants get food if they don't eat it? Unlike animals, plants are able to make their own food using sunlight, water, and air.

Have you ever had a houseplant that died because it didn't receive enough sunlight? All plants need sunlight to live. If a plant's leaves and stems aren't exposed to light, the plant will die. The green parts of a plant, particularly the leaves, are responsible for capturing energy from sunlight. Sunlight is important for photosynthesis to take place. Photosynthesis is a cellular process in which plants use sunlight, water, and air, to make food (simple sugars and starch), which is then used to support cellular functions.

Only plants can produce their own food, but this process is essential for sustaining all life on Earth. Plants tap into a continual supply of energy from sunlight and transform it into the food energy they need to live and grow. But animals also need the matter and energy plants produce through photosynthesis.

If plants didn't use sunlight to make food, they would die because they wouldn't be able to carry out necessary life functions. Just like animals, they need the matter and energy they get from food to reach every cell in their bodies so they can survive and grow. If the plants died, animals wouldn't have anything to eat. Although some animals only eat other animals, the animals they eat often depend on plants as their food source. So without plants, the entire food web on the planet would collapse.

Many students have the misconception that plants produce food for animals to eat. Although this is one aspect of the food web, it's important for students to realize that plants also need the food they make. Plants also need a system that ensures they have everything they need to make food and transport it throughout their bodies. Like animals, plants have a vascular system that transports materials, such as water and sugars, throughout their bodies.

As previously mentioned, *xylem* is a system of tubes that transport water throughout a plant. Water can only move upward and out of the xylem into the surrounding tissues where it's needed. *Phloem* is a system of tubes that carries food (sugars) throughout a plant. Unlike the movement of water in xylem, sugars can move upward or downward in phloem. These sugars are carried in water to parts of the plant that don't engage in photosynthesis.

Different parts of a plant also need air to carry out photosynthesis. Because the leaves, stems, and parts of the roots are all exposed to air, plants have no transportation system for oxygen and carbon dioxide; instead, each of the tissues exchanges gas locally.

Next, we'll consider how cellular processes can help us understand some of the similarities and differences between plants and animals.

5. Cellular Processes

5.1. Photosynthesis

As we've already noted, photosynthesis is a series of chemical reactions in which some organisms—mostly green plants and some types of bacteria and protists—use the energy from sunlight to build large, energy-rich molecules (sugars). These energy-rich molecules serve as food for the organisms that produce them.

In the first phase of photosynthesis, chlorophyll molecules capture light energy from the Sun, and enzymes convert it to chemical energy. As you may recall, chlorophyll is the pigment that makes plants green. In the second phase, plants use this chemical energy, along with carbon dioxide and water, to produce sugars, a type of carbohydrate. The carbon that makes up these sugars comes from carbon-dioxide gas the plants take in. These sugars are a plant's food source and provide the plant with both the energy and matter it needs to grow.

Because the sugars are matter for the plant, and carbon dioxide in the air is the source of the carbon they're made of, the mass of the plant comes from that carbon dioxide. Trees begin from tiny seeds, and yet they can end up as giant redwood trees. All of the mass that is added to make these large trees is the result of photosynthesis, specifically carbon dioxide reacting with sunlight and water to make sugars.

Figure 7 summarizes the process of photosynthesis. A plant uses sunlight, carbon dioxide, and water to make sugars, which are the plant's food, and oxygen, which is released into the environment.

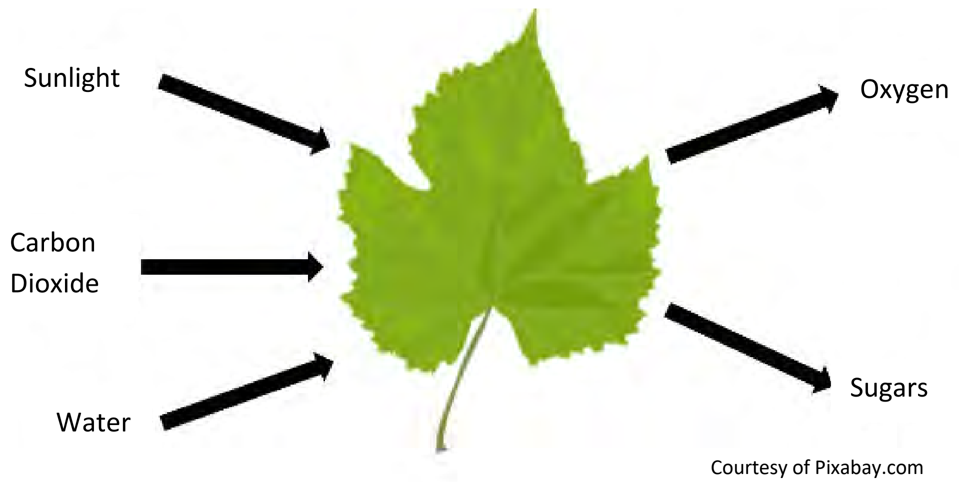


Figure 7. The process of photosynthesis. The inputs for the process of photosynthesis are sunlight, carbon dioxide, and water. The process takes place in the leaves and stems of plants and creates sugars and oxygen as its products. The sugars are food for the plant and can be used to carry out functions, store energy, and build body parts.

An input-output model similar to figure 7 can be used to summarize the process of photosynthesis for students. Be aware, however, that this kind of diagram can promote the misconception that plants release food and oxygen into the environment for other organisms to use. Although the plant produces oxygen and sugars in this process, it doesn't mean that all oxygen and glucose leave the plant.

Remember that plants aren't the only organisms capable of performing photosynthesis. Algae and a few types of bacteria are also able to carry out this process. These bacteria are of interest because scientists know that there were single-celled organisms 3.5 billion years ago. At the time, there was little or no oxygen on Earth, so plants and animals as we know them today could not have survived. The first single-celled organisms probably used complex molecules from the environment as their source of energy. At some point, as the number of organisms increased and began to use more of these complex molecules, the supply of molecules became more limited. Scientists think that limited resources may have favored the survival of cells that could use sulfur compounds, carbon dioxide, and energy from sunlight to build their own complex molecules. Some bacteria have the ability to produce this chemical reaction today, but this isn't photosynthesis because it uses sulfur compounds instead of water as input.

Scientists also believe that a few bacteria could use light, water, and carbon dioxide instead of sulfur to make their own food. Natural selection favored these bacteria because the resources they used for photosynthesis were more available. As a result, these bacteria began to reproduce and produce more oxygen. These photosynthesizing bacteria, which may have been the ancestors of modern plants, released so much oxygen into Earth's atmosphere that its composition was fundamentally different from its composition billions of years earlier.

5.2. Chemosynthesis

Photosynthetic organisms comprise most of the populations that can produce their own food. But another group of organisms can also make its own food. Deep in the oceans, there is no sunlight for living things to carry out photosynthesis. Some of the organisms that live at these depths, in complete darkness, have adapted in order to make their own food. These organisms use either hydrogen sulfide or methane, along with carbon dioxide and oxygen, to make their own food. This process is called *chemosynthesis*. Chemosynthetic organisms have been found in hot springs, at depths in the ocean where sunlight can't penetrate, along the ocean floor where there are hydrothermal vents or cold seeps, and around sunken ships.

5.3. Cellular Respiration

Once an organism has either made food or eaten food, what happens to it? We sometimes say that we eat food to get energy. But how does that happen? How are we able to use the chemical energy that's stored in large food molecules? The process of cellular respiration transforms the energy in food molecules into heat and molecules of ATP (adenosine triphosphate) that store small amounts of energy in cells. There are two types of cellular respiration. *Aerobic respiration* requires oxygen, while *anaerobic respiration* does not. In this section, we'll focus on aerobic respiration because it produces much more ATP than anaerobic respiration and thus allows more energy to be stored.

Remember that the food animals eat is broken down into smaller molecules first through chewing and then through digestive enzymes. These smaller molecules, in the form of sugars, are delivered to cells all over the body. At the same time, the circulatory system delivers oxygen from the air to all of the cells in the body. The cells then use the oxygen to break down the sugars through cellular respiration.

The diagram in figure 8 summarizes the process of cellular respiration. Sugars (food) and oxygen are the inputs for the process, and water, energy, and carbon dioxide are the products.

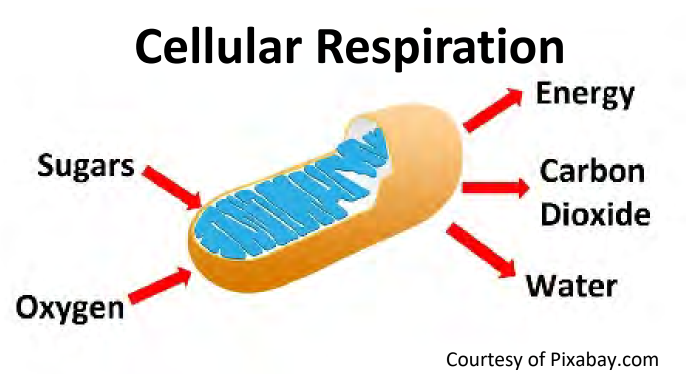


Figure 8. The process of cellular respiration. Cellular respiration takes place in cells and allows organisms to make use of the energy in food. The inputs for this process are sugars and oxygen, and the products are water, energy, and carbon dioxide.

Both plants and animals use cellular respiration to transform energy from food into a usable form. To accomplish this, they need oxygen from the air. Plants also need carbon dioxide from air to carry out photosynthesis. Together, cellular respiration and photosynthesis provide most of the energy needed for life on Earth. Plants make their own food using photosynthesis and extract the energy from that food using cellular respiration. Animals eat the plants to get the food they need to live and grow, or they eat other animals that have eaten the plants. Animals also use cellular respiration to transform the energy in food into a usable form.

STOP AND THINK

Explain what happens to the food you eat and the oxygen you breathe in.
How do your digestive, circulatory, and respiratory systems
work together to help you stay alive?

6. Summary

In summary, plants need air (oxygen and carbon dioxide), water, and sunlight to live and grow. They use carbon dioxide, water, and sunlight to make their own food through the process of photosynthesis, and they use oxygen to obtain the energy they need to live and grow through the process of cellular respiration.

Animals need oxygen, water, and food to live and grow. They must get the food they need from their environment by eating plants or other animals that eat plants. Like plants, animals obtain energy from their food through the process of cellular respiration, but unlike plants, animals can't use carbon dioxide, water, and sunlight to make their own food.

STOP AND THINK

Compare how a squirrel and an oak tree get and use their food.