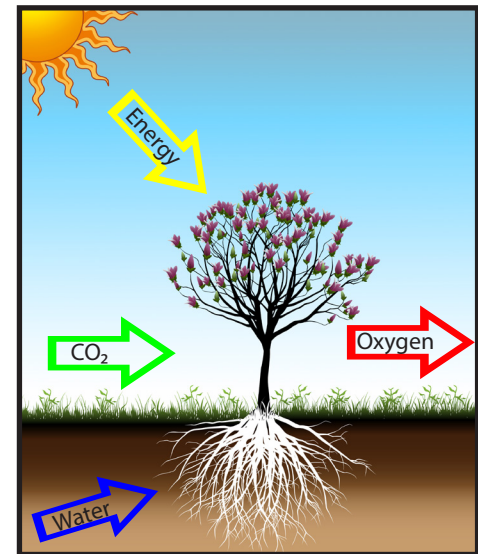
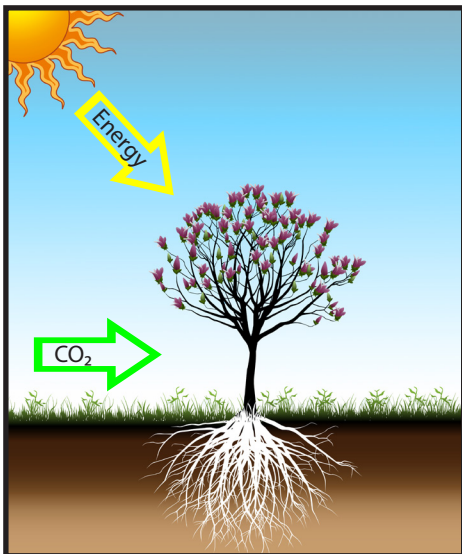
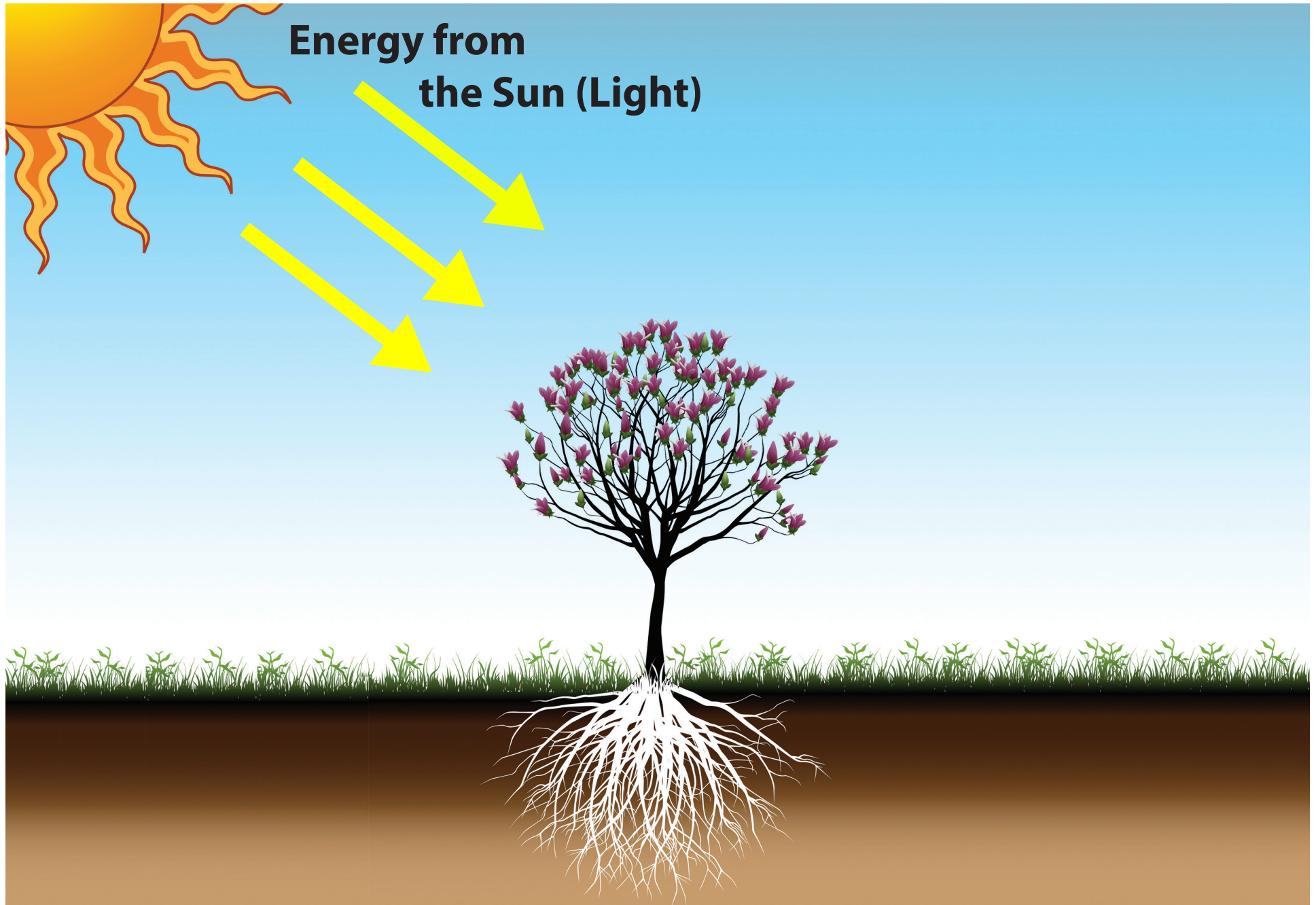


The Photosynthesis Process Flip Chart



Step 1



Step 1

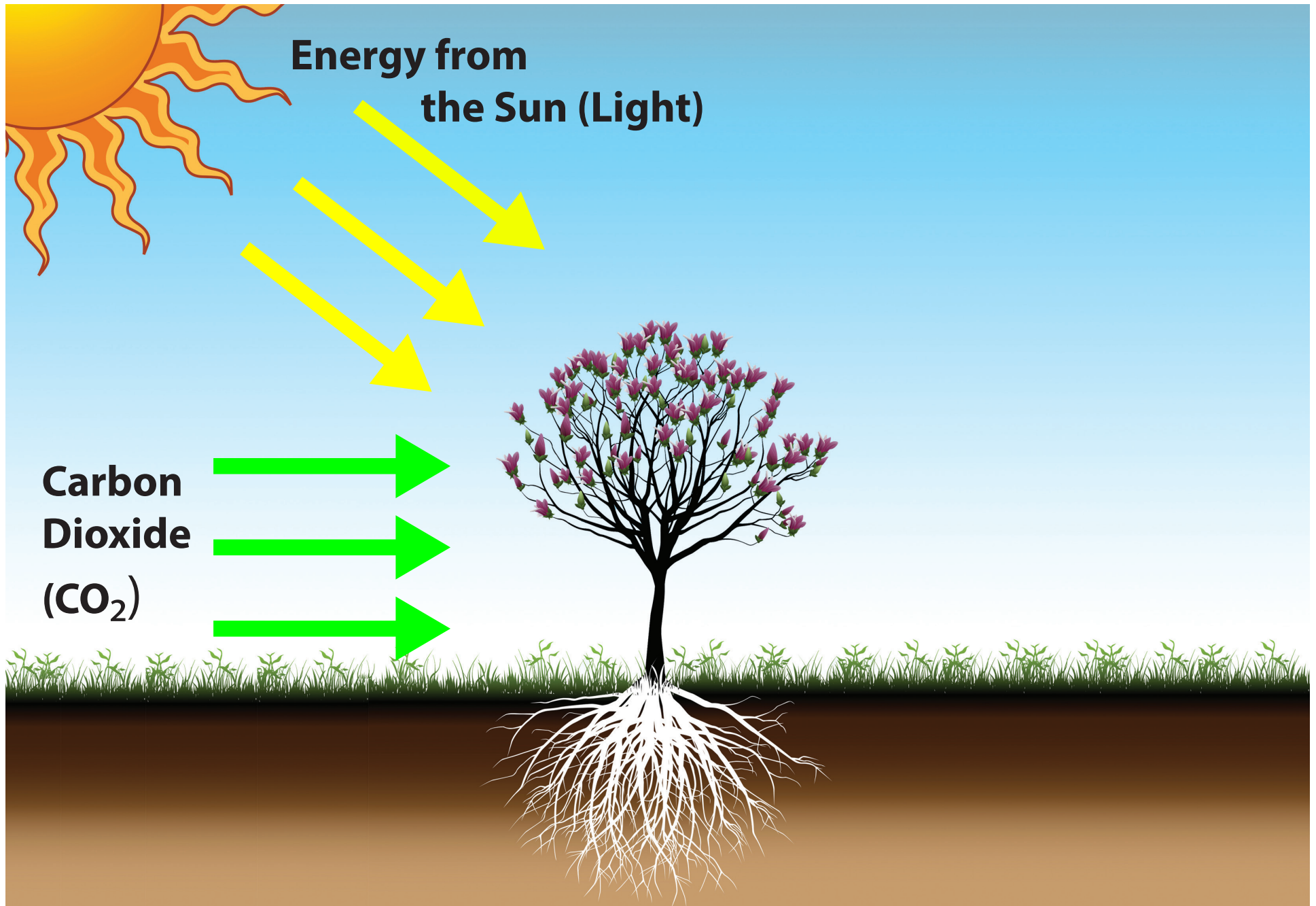
What is Photosynthesis?

Unlike humans, God created all plants with the ability to produce their own food. The process that plants use to create their own food is called photosynthesis. Photosynthesis is a very involved, four step process that involves the Sun, water, carbon dioxide, oxygen, and glucose (sugar).

Step 1: The Energy!

Like every living thing, plants need energy to live. While we, as humans, get our energy from the food we eat, plants get their energy from the light that the sun emits. The pigment that makes the plant green (chlorophyll), soaks up light from the sun. Leaves are responsible for handling most of the energy that is gained from the sun.

Step 2



Step 2

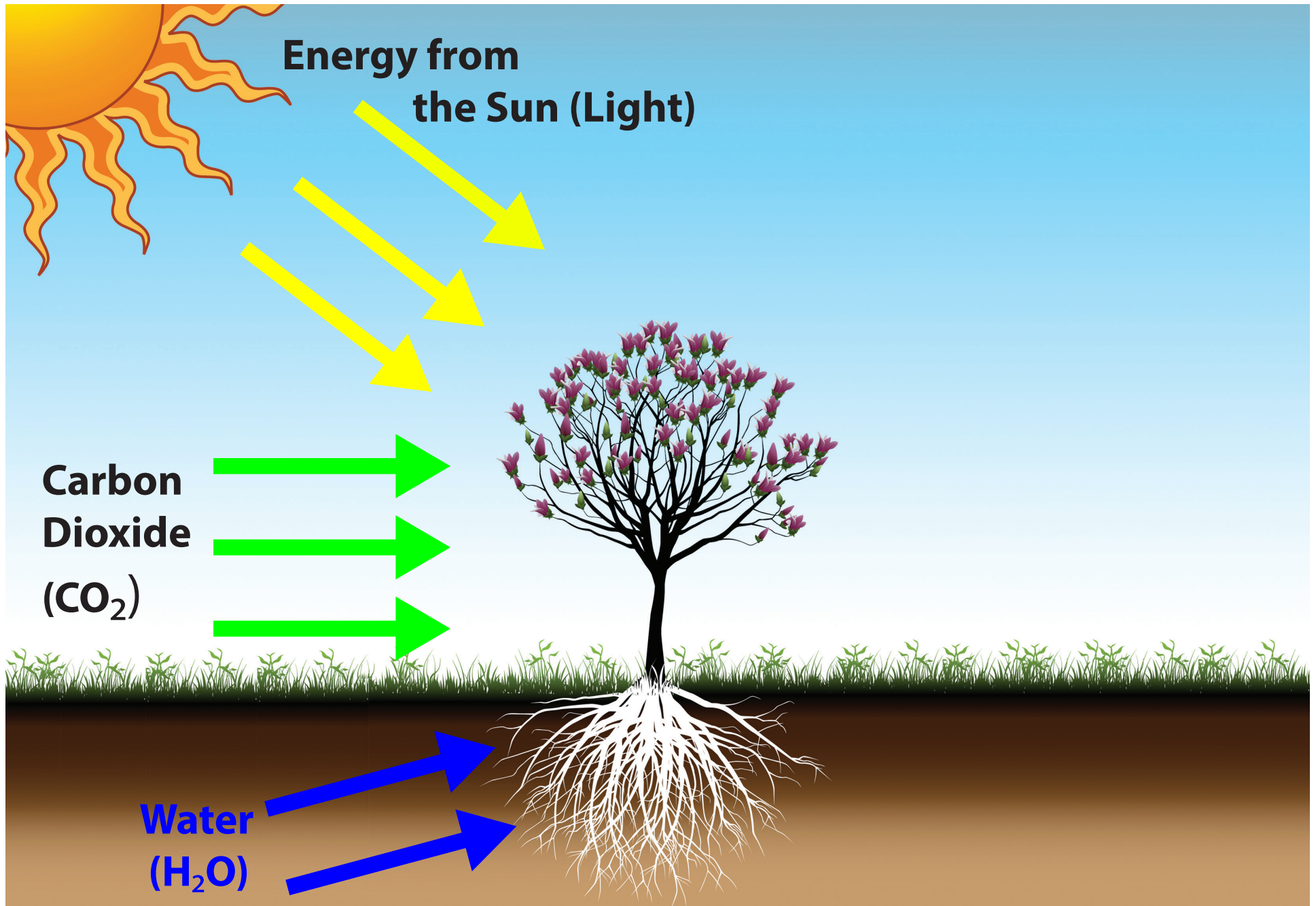
The Sponge

God created humans to depend on oxygen to live and survive. Humans inhale oxygen through the nose and mouth. Oxygen then enters the lungs and then enters into our blood stream for our body to use. When the blood stream picks up the oxygen, it drops off carbon dioxide or waste. Then humans exhale the waste. God created plants in the same way, except He created them to depend on something other than oxygen. He created them to depend on carbon dioxide. Carbon dioxide is essential to plant life in the same way that oxygen is essential for human life. Like the light from the sun, plants absorb carbon dioxide that is released by humans and animals.

God created a perfect world.

When God created the world, He created it in such a way that living organisms would depend on each other. If you notice, what is “waste” to plants (oxygen) is essential to human life, and what is “waste” to humans (carbon dioxide) is essential to plant life.

Step 3



Step 3

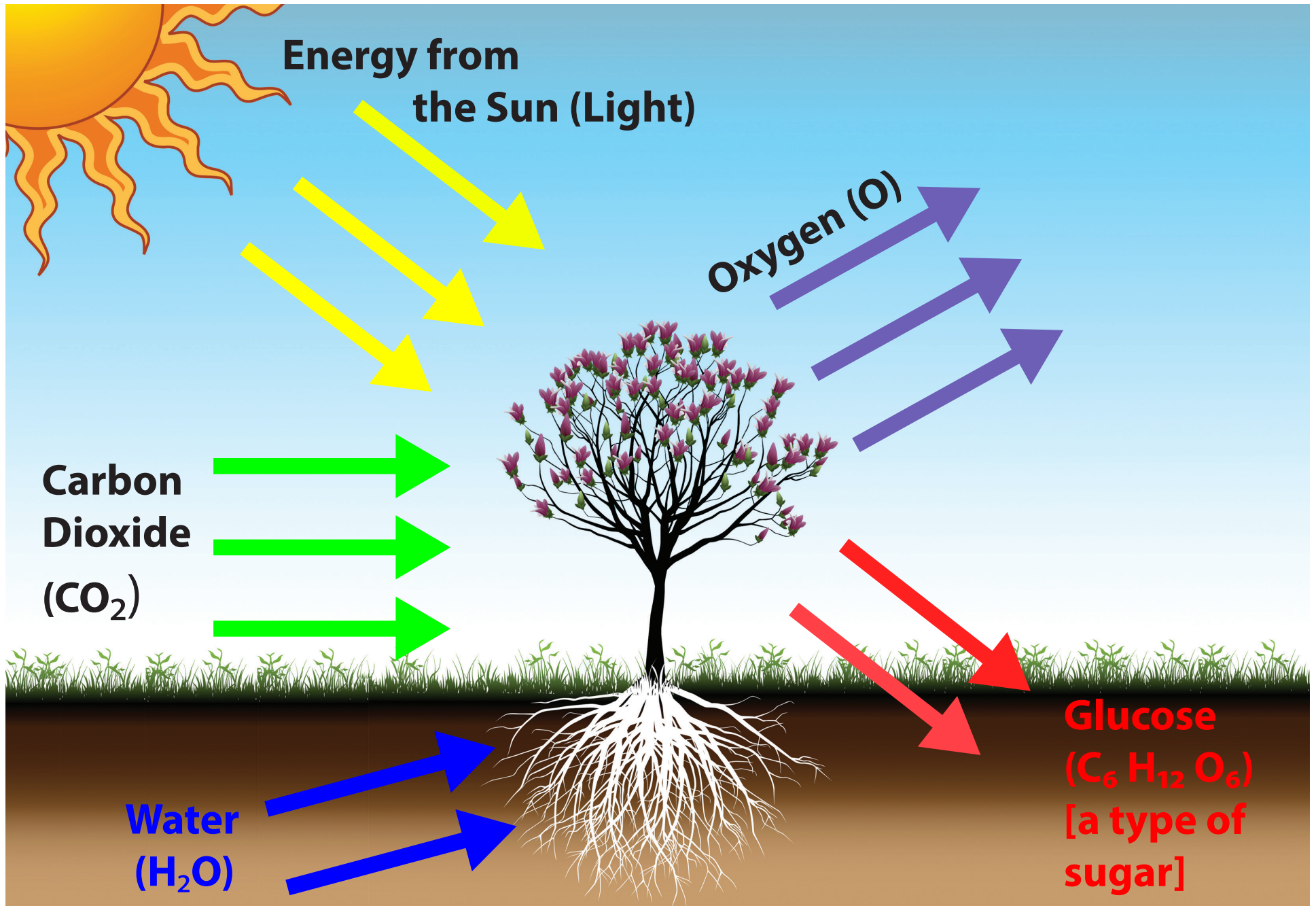
The Roots

Like every living thing on Earth, plants have to have water to sustain life. The next step is how plants absorb water. God created plants with roots that are never seen unless you pull a plant up out of the dirt. They spread out through the ground vertically and horizontally. Roots are very important to plants. They are responsible for anchoring the plants in the ground. Roots also are responsible for absorbing water and nutrients from the soil. Its roots are responsible for moving water and nutrients into the plant.

Paul Used the Root as an Analogy

Paul used a root analogy when he wrote his letter to the congregation at Ephesus. In Ephesians 3:17 he said, “that Christ may dwell in your hearts through faith; that you, being **rooted** and **grounded** in love.” Paul is explaining how essential love is to Christianity and tells us that we should be rooted and grounded in love. Paul uses the analogy of a root, because he knew that the roots on a plant are responsible for anchoring the plants in the ground so that they can’t be moved or uprooted. Likewise, Christians should be rooted and grounded in love.

Step 4



Step 4

The Food Factory

Did you know that everything you eat can eventually be traced back to a plant? Let's say you eat a hamburger. The hamburger comes from cows, but cows eat plants. God created plants for humans and animals to eat, because He knew that humans could not make their own food. In Genesis chapter one, just after God created man and woman, He told them in verse 29, "See, I have given you every herb that yields seed which is on the face of all the earth, and every tree whose fruit yields seed; to you it shall be for food." God created humans to need plants and plants to need humans; this is known as a symbiotic relationship. This is how this relationship works:

- 1) Plants absorb light from the Sun for energy
- 2) Plants absorb carbon dioxide released by humans and animals
- 3) Plants draw in water and nutrients needed from the ground
- 4) Plants create a chemical reaction (known as the Calvin cycle) between the three and give off oxygen for humans and animals to breathe and create sugar or starches for the plants to use as energy.

Plants are the only living thing on earth that can make their own food from carbon dioxide, water, and light. In a sense they are food factories. We should thank God for plants, because they meet two of our basic needs—food and oxygen.

Conclusion

Photosynthesis is the process where a plant takes light from the Sun, carbon dioxide from humans and animals, and water and nutrients through its roots, and converts them to oxygen and food for itself. Do you know anything else in this world that can produce food from these three components? Would the smartest scientist in the world be able to create food from these three things? Photosynthesis declares the glory of God.