They believe he was alive and well during the days that Jesus walked the Earth 2,000 years ago. He had already been living in North America hundreds of years before Christopher Columbus’ famous voyage to the Americas in 1492. He’s lived through many wars, including the Civil War, World War I and World War II, and is still alive and well today. His name is General Sherman. However, “he” is actually an “it.”

General Sherman is a giant sequoia tree named after the Union Army Civil War General, William Tecumseh Sherman, who died in 1841. Scientists believe that General Sherman (the tree) has been planted firmly in the ground (and growing!) for more than 2,000 years. It lives in Sequoia National Park, east of Fresno, California.

General Sherman is almost as high (275 feet) as a football field is long (300 feet). And, while most trees we commonly see growing in our yards (especially in the southern part of the United States, where I live) are about 2 to 3 feet in diameter, General Sherman is a whopping 37 feet wide at its base. In certain places, its bark alone is up to three feet thick. And, if that’s not impressive enough, consider that the diameter of its largest branch is nearly 7 feet.

General Sherman may not be the oldest, tallest, or even the widest tree in the world, but it is the largest tree known to man. When the overall mass of General Sherman is calculated (taking into account its height, diameter, and girth), scientists estimate that it weighs about 2,700,000 pounds. The largest animal ever known to live on Earth is the blue whale, which has been known to reach weights of nearly 400,000 pounds. So General Sherman is almost 7 times the size of the largest animal on Earth.

It is an amazing and breath-taking experience to stand at the base of General Sherman and gaze all the way up its trunk. Its existence should remind us of how awesome our God really is. Just think, on day three of Creation, God spoke all trees into existence, that soon produced seeds, which, in turn, grew into other trees “after their kind” (Genesis 1:11-13). Over time, one particular seed fell in the forests of east central California, which eventually grew up to be the largest tree in the world.
A DEADLY PLANT THAT LOOKS LIKE A SNAKE

Kyle Butt

An unsuspecting fly tastes the sweet nectar on the leaves of a plant. It follows the nectar trail into what looks like a strange “room” with lots of light coming in from the ceiling. Then it suddenly realizes it’s trapped. Several see-through areas at the ceiling of the “room” look like exits, so it flies toward them, trying to escape. However, the “windows” are not exits, but only tricks designed to fool the insect, and the fly becomes confused. It flies toward the back of the room and hits the wall, falling into a deep tube. Inside the tube are tiny hair-like structures that point downward. These “hairs” trap the fly and push it downward into a pool of liquid. The liquid is especially designed to digest the insect and use the nutrition to help the meat-eating plant stay alive.

As you may have guessed, this scene describes what can happen to an insect that finds its way into a plant known as the Cobra Lily. This amazing plant gets its name because it looks like a cobra with fangs, ready to strike. Of course, the plant does not strike like a snake, but God designed it with its own deadly abilities, at least as far as insects go. The bulb, or hood, at the top of the plant has several see-through “windows.” The Cobra Lily lures insects into its hood by using sweet nectar that insects like to eat. When the insects get inside the hood, they realize they are trapped and they try to fly out of the “windows.” But the windows are not exits. Eventually, the insect falls down the long “neck” of the Cobra Lily and is digested.

Isn’t it amazing that God gave some plants abilities to trick insects and capture them in specially designed traps? If we were to be walking through the woods and found a piece of paper with the design for a trap like the Cobra Lily has, we would think that someone quite smart had come up with the trap. So, when we see the Cobra Lily that uses its trap perfectly to stay alive, we can understand that God, the ultimate Designer, knew exactly what He was doing when He designed its trap.
"I'll have a large cheeseburger, a large order of French fries, a large coke, and a chocolate milkshake." This order has probably been placed by many people as they pull up to drive-thru windows. But how many plants have made a similar order at a fast-food restaurant? Have you ever stopped to think about the fact that plants require food just like humans, but they're unable to walk down to a local cafeteria and place their order? So exactly how do most plants get their food? Plants use a process known as photosynthesis to change the energy from sunlight into sugar, which they can then use as food. Photosynthesis may seem like a long scientific word, but it simply means "putting together with light." Without this unique process, life for humans would cease to exist! That long word is extremely important in providing humans with food to eat and oxygen to breathe.

God designed plants so that they get their food requirements from the environment. They do not shop or cook a meal. They are their own "food-factories." In order to make food, they need light energy from the Sun, carbon dioxide (CO₂) from our atmosphere, and water (H₂O). The overall chemical reaction involved in photosynthesis is: 6CO₂ + 6H₂O (+ light energy) → C₆H₁₂O₆ + 6O₂. This special equation tells us that when six carbon dioxide molecules are added to six water molecules in the presence of sunlight, the plant is able to make a large sugar molecule (glucose) and it gives off oxygen to the atmosphere. God designed the needs of humans and plants to compliment each other. Plants need carbon dioxide and they give off oxygen. Humans, on the other hand, need oxygen and give off (breathe out) carbon dioxide. In addition, plants are also able to...
absorb minerals from the ground. Because they are able to get everything they need from the environment, plants never need to visit a grocery store.

The process of photosynthesis takes place primarily in the leaves. The leaves contain cells which have special organelles called chloroplasts. Inside these disk-shaped structures is a green chemical called chlorophyll. Chlorophyll is the pigment that gives the leaves their green color. This colored pigment allows the cell to absorb the sunlight needed for photosynthesis to occur. Chlorophyll traps light energy which is then used to make sugar for the plant. Plants can make enough sugar on sunny days to make it through the night, as well as cloudy or rainy days. However, they are unable to keep large amounts of these sugar molecules stored up. Thus, God designed plants with the ability to convert that sugar into a starch that can be easily stored away. That way, when plants need extra food, they can turn the starch back into glucose. Plants are able to store starch in leaves or other parts of the plant.

There are two parts to photosynthesis: a light reaction and a dark reaction. The light reaction is responsible for converting light energy from the Sun into chemical energy. After chlorophyll absorbs sunlight it is transferred into chemical energy by forming a chemical called ATP (adenosine triphosphate), a compound that will be used to provide energy for the dark reaction. The dark reaction then completes the process by converting available CO₂ into sugar. This reaction does not require energy from sunlight, and can take place at night.

As days grow colder and fall approaches, plants slowly begin to shut down their food-making factories. God designed many plants to be able to live off the food they stored during the summer. The green chlorophyll disappears from the leaves as the trees prepare to rest through the winter. As the bright green color fades away, the leaves turn yellow and orange. These colors have always been there, but they were masked by the green chlorophyll. The bright reds and purples we see are caused by sugars that are left in the leaf. Sunlight and the cool nights of autumn turn this glucose into a red color.

The process that plants use to create food is amazing! This incredibly complex process requires special organelles (chloroplasts) and special light absorbing pigments (chlorophyll). Evolution cannot explain the origin or extraordinary existence of these cellular components. They were purposefully designed and arranged by Almighty God. The existence of plants is the handiwork of our Intelligent Designer.
Fill in the Blanks

1. There are two parts to photosynthesis: a _______ reaction and a _______ reaction.
2. Plants are the handiwork of our Intelligent _______.
3. God designed the Saguaro to survive _______ conditions.
4. Plants are able to store _______ in leaves.
5. “Let the earth bring forth grass, the herb that yields seed, and the fruit tree that yields fruit _______ to its _______” (Genesis 1:11, NKJV).

Crossword Challenge

Across:
3. Plants use this process to change the energy from sunlight into sugar
5. This plant gets its name because it looks like a snake
6. The process of photosynthesis takes place primarily here
8. A giant sequoia tree named after a Union Army Civil War General
9. H₂O

Down:
1. The only region on Earth where the Saguaro grows
2. Pigment that gives leaves their green color
4. Plants take in carbon dioxide and give off this
7. Tall, round cactus

Apologetics Press is pleased to announce our newest book for young people Truth Be Told: Exposing the Myth of Evolution. Kyle and Eric spent hours looking over many of the most used “proofs” of evolution. Truth Be Told shows that these evolutionary ideas are false. Have a parent, guardian, or relative order one for you today. The phone number they should call is 1-800-234-8558.

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Dear Digger Doug,

Why do some children my age believe in evolution, and have never heard of creation?

Akasha Nelson, age 6

Dear Akasha,

Some children believe in evolution because their parents have taught them that God does not exist, and that evolution is a proven scientific fact. It may be that they simply have never heard their parents talk about creation, or, more likely, have never heard of the logical reasons for believing in creation. Other children have learned many things on television, in books, and at school about evolution supposedly being true, and they don’t understand why anyone would doubt what so many so-called “smart” people would tell them.

Sadly, a lot of children have not been permitted to read the kind of articles you read in Discovery magazine every month, which teach the truths about “Scripture and science.” Akasha, maybe you (and others who get this magazine) could share it with friends who do not get to hear much about God, His world, and His Word.

Thanks for your question. I hope you enjoy this issue of Discovery.

Juliana Mecaskey, age 9
The Mighty SAGUARO

DAVE MILLER

When you see a picture of the old West with cowboys, you probably remember seeing a tall, round cactus with round “arms” that stick out of the side and then curve upward. You probably did not know its name: the Saguaro (suh-WAR-o). The mighty Saguaro grows in only one region on Earth—the Sonoran Desert (southern Arizona, northern Mexico, and a tiny pocket of southeast California). These desert giants are the largest cacti in the United States, dwarfing every other living thing in the desert.

Saguaro grows very slowly—only about one inch per year. The average life span of a Saguaro is probably 150-175 years of age, although some may live over 200 years! They can weigh six to ten tons, growing to a height of fifty feet and two feet in diameter. This tremendous weight is supported by a circular skeleton of wooden ribs that make the outside appear as a massive fluted column. Shallow roots spread out just beneath the surface of the ground to wrap around rocks to support its great height and weight, and as an anchor against desert winds.

God designed the Saguaro to survive desert conditions. Though birds like the Gilded Flicker, the Gila (HEE-luh) woodpecker, and the tiny elf owl chisel small holes in the trunk for a home, two-inch spines clustered on the ribs provide protection from serious injury. As water is absorbed through the roots, the ribs of the Saguaro can expand like an accordion so water can be stored for use during the dry spells.

Saguaro begins to grow “branches” (arms) only after 50 years. At age 35, they begin to produce creamy white flowers, usually at the top of the main trunk and arms. The three-inch, oval, green fruit ripens just before the fall rainy season, splitting open to expose bright-red, pulpy flesh that desert creatures like to eat. A single fruit from the Saguaro can have as many as 4,000 tiny black seeds, with a Saguaro producing some 40 million seeds during its lifetime. When the fruit and seeds are eaten by a coyote or bird, the seeds pass through their digestive system unharmed and are distributed throughout the desert to grow more cacti.

Like the whole created realm, the mighty Saguaro shows the handiwork of God (Psalm 19:1).