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## PROTECTING THE PLANTS

by Lanny and Marilyn Johnson

"In the beginning, God created a beautiful, perfect world. It was full of life, without sickness, pain, suffering or death," Mr. Jones told his son Billy and daughter Mary during evening family devotions. "However, Adam's sin changed all that. When he disobeyed God (sin) and ate the fruit that God had told him not to eat, sin and death came into the world (Romans 5:12)."

"Is that why bad things happen, Dad?" asked Mary.

"Yes, Mary. It is because of Adam's sin, the whole creation is suffering (Romans 8:22)," he answered. "Today we live in a world in which it is a struggle to live. However, God, through His love and kindness has provided ways for all of His creation to survive (Ps. 116:5)."

"How did He do that, Dad?" asked Billy.

"Well, Billy, there are so many examples of God taking care of the things He has made, that I would never be able to tell you about all of them. So, let me just share a few with you.

"There are millions of kinds of insects in the world. The babies (larva) of many insects feed on different plants until they grow into adults. I want to tell you about a very beautiful caterpillar. Wait just a second; I have a picture

of one here in a book on the shelf." Mr. Jones gets a book from the bookshelf and opens it to show a picture of a gypsy moth caterpillar.

"Awesome! It is so gorgeous!" exclaimed Mary.

"Yes, it is. It is also a very hungry caterpillar – just one can eat about 11 square feet of vegetation before turning into an adult," said Mr. Jones.

"Is that a lot, Dad?" asked Billy.

"You tell me, Billy. If you covered the opening of the bathtub with a big piece of paper, it could eat about that much."

"Wow! That is a lot!" Billy exclaimed.

"Once in a while gypsy moths come together in large groups and lay millions of eggs, which hatch out into millions of hungry caterpillars. Although gypsy moth caterpillars can feed on over 500 different kinds of trees and plants, they really like the Beech, Poplar, Sugar Maple, and especially Red Oak trees." Mr. Jones continued, "Now you might think that the huge number of gypsy moth caterpillars eating away on the leaves of these trees would wipe out the trees and the forests. Thankfully, God created lots of plants with ways they protect themselves – otherwise we wouldn't have many plants around today."

"Aah Dad, you're pulling my leg! Plants just sit in the dirt and grow. They can't beat up the caterpillars and make them stop munching them!" Billy cried out.

"Actually, Billy, these trees

do beat the caterpillars up using chemicals," Mr. Jones smilingly answered. "When one of these trees are attacked, they send out a chemical smell called a pheromone (fe-ru,mown) to warn



the neighboring trees of danger. Somehow, even though they don't have a nose, the surrounding trees begin to put together chemicals to protect themselves. Some trees make chemicals that make the leaves impossible for the caterpillar to digest, so even though their belly is

full, they starve and die. Others can make poisons that will actually kill the caterpillar as soon as it crawls onto a leaf. Some can make as many as 8 poisons at once, so that if one poison doesn't work to kill the caterpillar, another one probably will. Amazingly, if the poisons a tree makes one year don't work, and the tree somehow survives, many can change the poisons that are made from year to year."

"Dad, that seems a little unfair to the caterpillar ... I mean after all, it needs something to eat to live!" Mary proclaimed.

"That is true Mary; the caterpillar does need food to eat. So God created a balance - not every poison made by a tree is poisonous to every insect. So a tree's poisons only limit the number of insects that can feed on it" Mr. Jones answered.

"Kids, can you see that God even cares about providing the needs of His insects and plants? Do you understand that He cares even more about our lives?" asked Mr. Jones. "Let's pray and thank God for how much He loves and takes care of us."

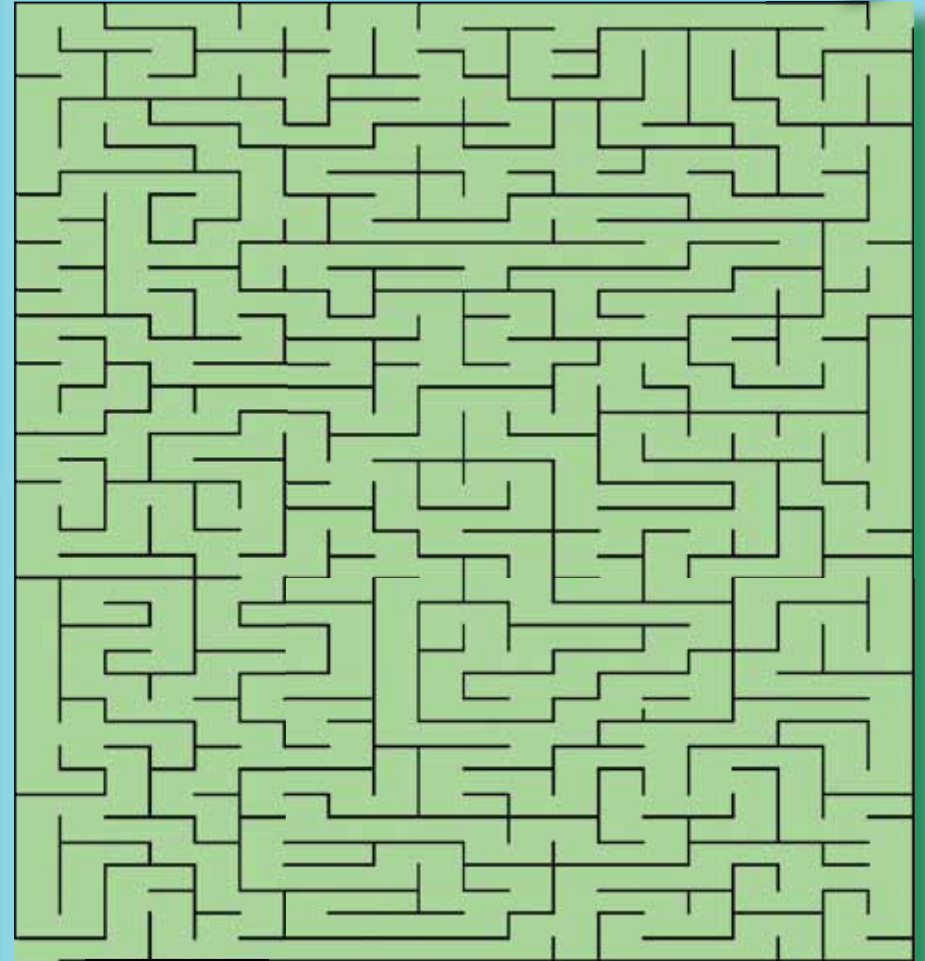






Find 16 differences in 2 pictures on left

Help the PHEROMONE find it's way to the tree on bottom of maze to warn it of danger



FOR ANSWERS GO TO: <http://www.discovercreation.org/kids/NewsletterAnswers.htm>