

Kids Ask Dr. Bug

Home to more than plants, kids ask Dr. Tamra Reall about the curious things found in the garden.

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What are some good bugs? Lucy, 7

Insects don't think of themselves as good or bad, they just ARE. They are born and then they do what their instincts guide them to do. As people, we measure "good" as in how the insects benefit us. So, if an insect eats our food, it may be considered bad. If an insect helps us, for example, by making food, eating bad bugs, or by recycling nutrients from poop or dead animals and plants, we think of it as good. Using this definition, most insects are good! Some of my favorites are bees, butterflies, dragonflies, and many flies and beetles.

I noticed stickers on some Monarch butterfly wings. Why would someone put stickers on a butterfly? Ryan, 10

That is a great observation! Citizen scientists, who are people like you, are part of a large project to learn about the amazing migration Monarchs make every autumn. They capture a Monarch, put a special tag on a wing, note the unique tag code, date, and the butterfly's gender, and let the butterfly go. The information is sent to the Monarch Watch database to be used in research. These sticker tags are made specifically for Monarchs and do not hurt the butterflies or interfere with flying. Go to <https://monarchwatch.org/tagging/> to learn how you can help out!



Image: Tagged Monarch Butterfly by Katja Schulz (CC by 2.0)

When an insect eats hole in a plant, will the hole close up on the plant? Charlotte, 9

When you get an injury, such as a cut or bruise, your body heals the damaged cells or grows new cells. Plants are very different than people. They seal around the injury to keep an injury from spreading. The damage will stay there. This is why carved initials in a tree can be seen years later (please don't do this to trees!). However, plants have another tool to help them recover from injuries – they grow many more new leaves so the plant can still get the energy it needs to live.

How do bees make honey? Ellie, 10

Older bees, called foragers, drink nectar from flowers and store the sugary liquid in their honey stomach, called a crop. After returning to the hive, bees regurgitate the nectar to other bees who take the nectar to the honey storage cells near the top of the hive. A special enzyme from the crop helps turn the nectar into honey. In the honey cells, the nectar has to dry out because there is too much water in it. Other bees fan their wings to help evaporate the water. Bees make honey for their food. They store a lot of extra honey to make it through the winter when it is too cold to fly and there aren't many flowers. It's a lot of work to make honey. A single bee may only make 1/12 teaspoon of honey in her entire life. To make a pound of honey, bees will have to visit around 2 million flowers.

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