

[MUSIC PLAYING]

- Hi, I'm Hannah. I'm a Junior Master Gardener. And we're here at the Riverbanks Zoo & Botanical Gardens with a lot of other kids that are also junior master gardeners. And there are some Leaf Squads, who are the alumni. All of them are young and older 4-H-ers.

So if you'll follow me, we're going to go see what's going on. Come on.

[MUSIC PLAYING]

- Hi, I'm Carolyn. And I'm a leaf squad member here at Riverbanks Zoo & Garden. JMG is Junior Master Gardeners, a garden program that is run by volunteers-- like me. And it teaches kids all about gardening and a little bit about life as well.

A Leaf Squad member is someone who has graduated from JMG Level 2. There are two levels of JMG. The first one is for younger kids, and it's a little bit different from the second level, which is for older kids. We do a lot of experiments and activities as part of the JMG curriculum. Today I was helping the volunteers with the younger kids.

The first activity that I helped with is plant pounding. Plant pounding is when you put a piece of cloth-- any kind of cloth-- and you put some plants on top, and you hammer them and they leave an imprint in the cloth. What you do first is put down a cutting board. That mostly is for keeping the workspace clean and keeping it from getting plant pulp all over the place.

And then put down a piece cloth. After you've placed down the plants on a piece of cloth, you put a piece of plastic wrap over it to keep it from going under the hammer and into the cloth. Then you lightly tap with a mallet or a hammer into the cloth until there is an impression.

Our second activity was to teach the younger kids about the benefits of plants, such as aloe, which is used in many medicines and can also be used in things like deodorant, lotion. There's many, many things that aloe is used in.

[MUSIC PLAYING]

- OK. We're going to talk about wetlands and wetland erosion. Anybody know what a wetland is?

- Well, a wetland can refer to any sort of shallow body of water that's in between a proper lake or river and dry land.

- A lot of animals like to live there, like amphibians and all those frogs and other creatures like that.

- The experiments today showed how the water runs down into rivers pushing the soil. The one with the carpet was representing how the wetlands absorb water.

- They also represent how they can purify water, because sediment will get trapped there, and that it can slow the release of water down. It doesn't let it all come out all at once, thus tearing away land.

- A famous wetland is the Everglades.

- And the title of my presentation is *Do The Beetles Bug You?* And I do not mean the music. The beetles are in the order of Coleoptera. They are the order with the most species.

The beetles make up 25% of all life forms. But some are pests and some are not pests. The ones that are pests are called by the scientific name non-beneficial or non-helpful. And the ones that are not pests are called beneficial or helpful. The Japanese Beetle, or *Popillia japonica*, is a non-beneficial insect, and the Ladybug Beetle, or Coccinellidae.

Now, you may think, she's supposed to be talking about beetles, not bugs. I'll explain. All bugs are insects, but not all insects are bugs. It's very true for the Ladybug because the Ladybug is an insect, not a bug. So the name "Ladybug" is incorrect.

During all of its lifecycle, the Ladybird Beetle will eat harmful insects. They eat the eggs of two very, very bad insects that get into the gardens and all, and they are the European Corn Borer and the Colorado Potato Beetle. And during one Ladybird Beetle's lifetime, they will eat more than 5,000 aphids.

[LAUGHTER]

When the winter comes and there are Ladybugs in your house and your mom says, oh, those pests, you can say, no, Mom. Those are helpful. And you can just put them outside.

[APPLAUSE]

[MUSIC PLAYING]

Today we kind of worked with bugs and insects. And then we went on a walk and looked for them. But we did catch some non-beneficial insects, and we'll get rid of them so they can't harm any plants.

- One of the things I love most about JMG is the wonderful people you encounter. As I said, it is completely run by volunteers, people who just take their time-- and some people do it so much, it's really humbling. And I am just so blessed to be able to work with these wonderful people. I love being a part of these JMG 4-H programs, and I can't wait for the next activity.

[MUSIC PLAYING]

[WATER SOUNDS]