Science Virtual Learning

LEP Science

Plant Defenses

May 21, 2020

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Lesson: May 21, 2020

Objective/Learning Target: I can explain how plants defend themselves from predators.

Let's get started

Just like animals, plants need to defend themselves from predators and the environment. Take a moment to write down how you think plants achieve this.

Were you able to think of things like thorns or stickers? What about tasting bad or leaving a wet substance on your hands?

If you did, great. If not, don't worry because there are many more than just those mentioned above.

Watch this video to learn a little more about plant defenses. You may want to take down a few notes or add to the list your started.

So now you know that plants are not just defenseless organisms waiting to be eaten.

Plants are actually pretty advanced for not having a brain. Let’s look a little closer at some of the plant defense mechanisms.

Spines, thorns, prickles: These are sharp and warn would be herbivores to stay away. Have you ever touched a cactus or tried to grab a rose by its stem?

Sticky Hairs - these are little hair like projects on the leaves and even the stems of certain plants. They have a sticky substance on them that is not pleasing to eat nor can smaller insects escape it.

Chemical Defenses: some plants have a chemical inside them that is toxic or tastes bad (milkweed), while other plants secrete a toxic substance onto their leaves (poison ivy).

Finally, some plants actually “move” in response to touch. By doing so, they shrink their surface area for consumable vegetation and make themselves look “sick” so that predators are deterred and will move on. The mimosa tree is the best example. Another example is the “Jumping Jack Cactus” that senses heat and will shoot thorns at you if you get too close.

Here is a quick quiz to see how well you have learned about plant defenses.

Additional Resources

Here is an article about plant defenses
Here is another article about plant defenses

Here is a video that goes over plant defenses--some great examples can be seen here.