

One Day in the Desert Part 2  
Nature Park Adventures and Neighborhood Scavenger Hunt  
Asombro Institute for Science Education

>> Mr. Ryan: In this video we'll continue exploring the Chihuahuan Desert. We are going to learn along with Mariana and her class about some fascinating animal adaptations, how the land has changed over time, different land features, and go on a scavenger hunt in our own backyard or neighborhood.

Keep your eyes open because you're on a mission! In this video listen for an interesting plant or animal. At the end of the video you'll be asked to record one of the plants or animals that you've learned about.

Hi everybody! It's Mr. Ryan again from the Asombro Institute for Science Education. Now the last time we were together we learned a little bit about the Chihuahuan Desert and some of the history of this area. The Chihuahuan Desert is one of the most diverse deserts in the world, with lots of different types of unique plants and animals that live here.

Now to survive in these dry, arid conditions, lots of organisms need to have really special adaptations. Some of the most unique adaptations can be found in the honey pot ant! Not only are these guys great little engineers, but they have a unique way of making sure everybody in the colony remains fed even when conditions are the driest. In a honey pot ant colony, some workers are quite special. They're known as repletes and have enlarged abdomens. Their abdomens can get so large that they often have trouble moving around. So instead, they can conveniently be found, hanging from the ceiling! The other foraging worker ants will collect nectar from desert flowers to feed the repletes.

Oh, thank you. When conditions are really dry and food scarce, the repletes will then release that food from their abdomen to feed the entire honey pot ant colony. Now that's unique!

In part one, covering the first part of [One Day in the Desert](#), you were introduced to Mariana, a young girl from Las Cruces, New Mexico, excited to go on a field trip to the Chihuahuan Desert Nature Park, where she can see the area where her grandparents once owned a ranch and discover something to write to her Eco Pen Pals. Let's continue reading about Mariana and her field trip to Asombro's Chihuahuan Desert Nature Park.

>> Dr. Garza: Welcome to the Chihuahuan Desert Nature Park! Dr. Garza, the Nature Park scientist greeted the class wearing a wide-brimmed hat and an easy smile. I challenge you to find as many signs of animals living along the trail as you can during our hike.

>>Mr. Ryan: Mariana clutched her field journal which held the photo grandpa had given her. At first, she didn't see any signs of animal life. But when she looked more closely, she was amazed. Animals were all around her even if she couldn't see them. Some were hiding underground, while others were difficult to spot because of the camouflage. Their adaptations made them hard to find, but helped them

survive here. She wrote a quick list and made some sketches of the animal signs she found along the trail as they continued their hike.

Mariana's class climbed the extinct volcano, and cloudless sulphur butterflies lifted from the shrubs, as they arrived at the top. One landed on Mariana. She smiled, and noticed that the view from the top of the hill was similar to the one from the photo. She showed it to Dr. Garza, Mrs. Locke, and the class.

>>Dr. Garza said, "This is a great example of an ecosystem that has shifted. Most of the land we can see here used to be covered in grass, but it is now covered in mostly shrubs like creosote bush and mesquite. The land is always changing. She helped Mariana find a small lemon scent flower, only one of three plants they could find growing on the hill this year. In years with more rain, like in the photograph, the hills would be covered in the sweet-smelling plant. Mrs. Locke took a group photo of them so that Mariana could show her family how much the valley had changed.

>> Mr. Ryan: I would like to pause here for a moment in our story to elaborate on something Dr. Garza mentioned, shifted landscapes. The Chihuahuan Desert looks very different than it did a hundred and fifty years ago. Today, some areas that were once grasslands are mostly covered in shrubs. Other areas changed from shrub land to grassland. The shifts from one plant type to another are called state changes. Scientists can't always see these changes by watching the land because it happens too slowly. Scientists rely on data that past scientists have collected to tell them how rainfall, temperature, and land cover have changed. These long-term datasets help scientists understand how ranching, natural shifts in climate, and human-made climate change have all influenced these state changes.

>>Dr. H.: What traditional New Mexico profession became more difficult due to vegetation or state changes in the Chihuahuan Desert?

[THUNDER RAIN SOUNDS] The storm came with little warning. Wind kicked up sand that peppered Mariana's skin.

"Everyone back to the bus!" Dr. Garza called.

>>Mr. Ryan: Her voice was stolen by the wind. The curtain of gray rain fell from the clouds.

"Quickly kids!" yelled Mrs. Locke. They rushed back onto the bus as the rain began to plink against the roof, and then drum so loudly that the children could no longer hear each other talk.

A fresh, clean smell filled the air. The rain had come too fast to soak into the soil. Small channels formed and washed downhill into arroyos that emptied into the bottom of the basin.

After the rain became softer, the bus driver delivered the bad news. They would have to leave the Nature Park early, before the dirt road became impassable from the mud. Mariana was disappointed. They had only just begun to explore.

The bus driver navigated down the road until the bus suddenly stopped. It was stuck. The class got off and stood by as the driver tried to move the bus forward. The wheel spun and SPLAT! [SPLAT

SOUND] Mariana and her classmates were covered in mud. Even Mrs. Locke and Dr. Garza were splattered.

>> Dr. Garza: Good news! Some nearby ranchers can help us. But it looks like we'll be hanging around for a while until they can get a tractor over here to pull us out. Mariana laughed. Even though she was covered in mud, she was secretly glad to have the opportunity to stay in the desert a bit longer.

>> Mr. Ryan: I'm standing in what's called an arroyo, a dry streambed, which can fill with water after summer rains. Rain water will seep into desert soil, but water falling on the surrounding mountains, will move downhill so quickly and rapidly fill these dry arroyos with fast-moving water. The Chihuahuan Desert Nature Park lies in a closed basin with no outlet for the rain that falls here. The water filling the arroyo collects in a temporary lake called a playa at the bottom of a flat basin. This temporary lake lasts only for a short period but is still very important to the plants and animals that live near it.

>> Dr. H: We will stop here for today but I think we should do some exploring at home to learn a little bit more about the ecosystem you live in.

What did you find out? Write the name of one plant or animal you learned about in this video?

Mariana and her class discovered some amazing things on their field trip by taking the time to explore the Chihuahuan Desert. Well, you can do this too! Let's go on a scavenger hunt for what lives in your backyard or neighborhood. You're going to make some observations, recording what you find, and keeping track of all your discoveries. You'll need some paper to record your observations and a pencil! Write down what you find, describing it, and make some drawings. Or you can also take photos if you want to.

As you get ready to go on your scavenger hunt, grab an adult to go with you or tell an adult you're going outside.

To start with, look for colors, shapes, and textures. Can you find something oval or orange? Something green pink or rough? Don't forget to record what you find. Let's look for signs of plants or animals. You might not always see them. But by finding feathers or holes in the ground, you know an animal has been there. Look for plant seeds, leaves, spiderwebs. Draw some pictures of what you find. Of course, you can always look for plants and animals. In New Mexico, you should be able to find a creosote bush in your neighborhood and also a yucca, the state flower of New Mexico. Look for birds and insects, like ants and grasshoppers.

I hope you enjoy exploring your backyard, discovering what lives there. Remember to record what you find, draw pictures, and tell someone about your scavenger hunt.

>> Mr. Ryan: That's it for part two of One Day in the Desert. Be sure to join us again for part three of our video series to learn some more cool desert science and see what adventures Mariana and her class have while they wait for their bus to get towed out of the mud. There are more surprises ahead and more exciting things to learn at the Chihuahuan Desert Nature Park. So, until next time, bye everybody.