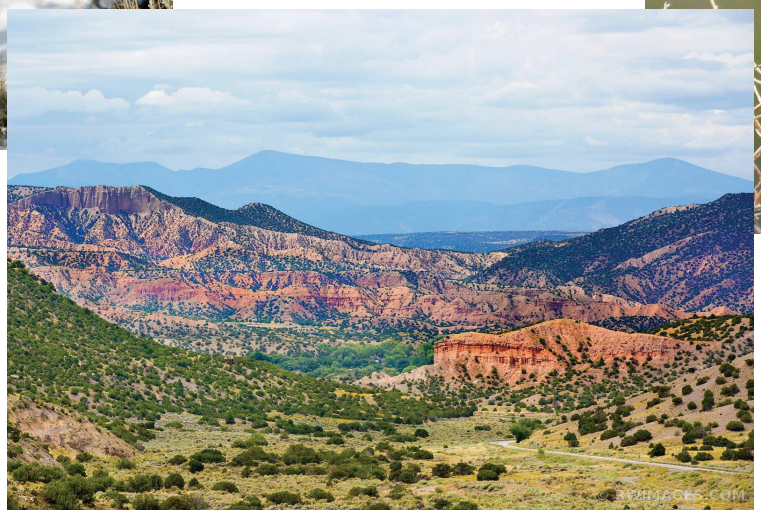
Experiencing the Outdoors: How to Bring the Outside, Inside

Have fun and stay safe while learning about the amazing natural world around you



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Introduction

Let's be honest, staying inside all day can be boring. You can only watch so much TV before you feel like your eyes are going to melt. But never fear! Your friends at the Valle de Oro Urban Wildlife Refuge have created a list of unique, exciting activities that help bring the fun of the outdoors right into your living room! Keep reading to learn more about the interesting activities on both plants and animals that you can do in the comfort of your own home.

Let’s get started!

How to Make a Nature Journal

For the activities below, you will need some paper to draw and write on. There is no better way to keep track of all of your nature drawings and writings than to make a Nature Journal! Making your very own Nature Journal is easy, just follow the directions below.

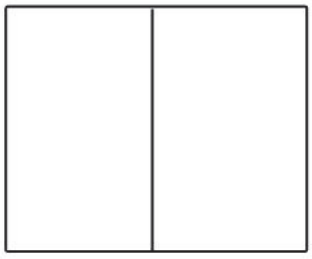
*You can also use a regular notebook as a Nature Journal.

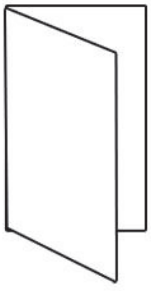
Materials:

- 8 pieces of blank or lined paper
- Hole puncher or scissors
- String, yarn, or staples

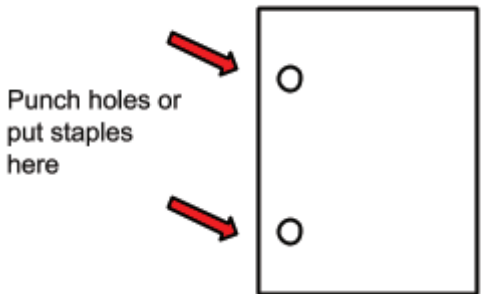
Directions:

1. First, grab 8 pieces of paper and make sure they are all stacked evenly.
2. Fold all of the papers in half widthwise, making sure all of the edges are even.





3. Next, use a hole puncher or scissors to make even holes through the folded papers. Make one hole near the top and one near the bottom OR if you are using a stapler, put a staple near the top and bottom of the folded paper.



4. If you used a hole puncher, grab some string and tie it through the holes, binding all the papers together.
5. Lastly, write “Nature Journal” in large letters across the cover, and decorate it with drawings of your favorite plants, animals, or scenery. You can even use glue or tape to put leaves or twigs on the cover of your journal.

Click on this link for more examples:
https://www.greatstems.com/2013/05/wildlife-projects-for-kids-making-a-nature-journal.html

Nature Journal Topics

Complete some of the quick activities below, or keep reading to learn more about the amazing plants and animals of the Southwest. You can also print out this sheet, cut out the prompts, and put them all into a bowl or hat and mix them up. Then, close your eyes and choose a slip of paper, and do whatever the activity says!

1. Draw an animal that swims.
2. Draw an animal or insect that flies.
3. Draw an animal that hunts other animals as its food.
4. Sit outside for ten minutes and draw an animal or insect that you see on a tree or bush.
5. Draw an animal that is an omnivore (an omnivore is an animal that eats food of both plant and animal origin).
6. Draw an animal that you see on tv.
7. Write a poem about your favorite wild animal.
8. Draw an animal that lives underwater.
9. Draw an animal that has four legs.
10. Use a computer and look up an animal you have never heard of before. Draw that animal in your Nature Journal!
11. Draw your pet. If you don't have a pet, draw a pet that you would like to have.
12. Draw an animal that scavenges for its food.
13. Sit outside and sketch a cloud that you see.
14. Write a poem about your favorite type of flower.
15. Draw a perennial plant (a perennial plant dies in the winter and regrows in the spring).
16. Go outside for ten minutes and draw a plant that you see in your yard.
17. Draw a plant that has leaves.
18. Use a computer and look up a plant that animals like to eat. Draw that plant in your Nature Journal!
19. Draw a plant that is pointy/ has thorns.
20. Sit outside for ten minutes and write a list of everything you hear.

Activities about Animals

Animals in My Backyard

New Mexico is home to many different species of animals. New Mexico has BOTH a state animal and a state bird. Take a minute and try to guess what they are before you keep reading. What did you guess? Well, the New Mexico state animal is the American Black Bear, and New Mexico's state bird is a Roadrunner. Look at the images below to see these awesome animals.

Talk to people in your home about animals you have seen in your yard, around your house, and in New Mexico! Look out your window and find an animal in your yard or near your house. Maybe it is a dog, coyote, snake, or roadrunner! Draw an animal you see in your Nature Journal, or if you cannot find an animal, draw one of your favorite New Mexican animals. You could even draw an insect like an ant or a beetle.

You can also play a game of Animal Tag. You and others in your house choose an animal to be, and try to tag one another while acting like that animal. You may act like your animal by crawling on your hands and knees like a bear, slithering like a snake, or jumping like a rabbit!

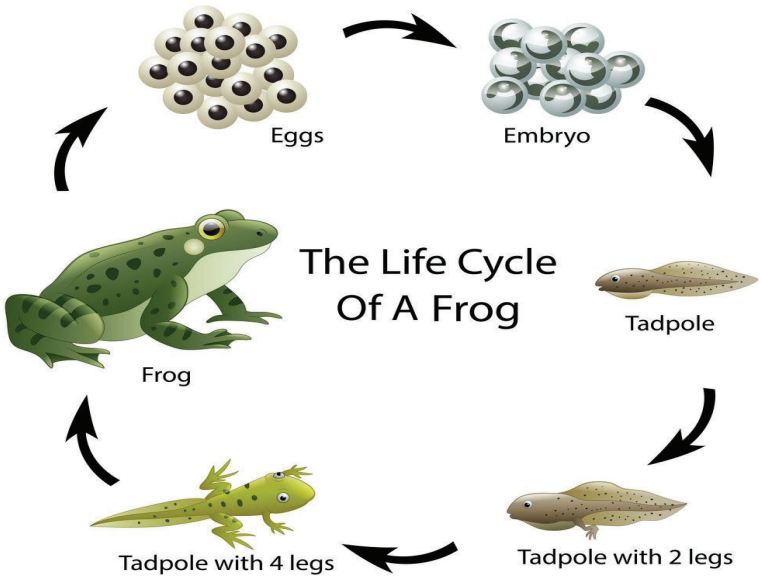
Roadrunner
New Mexico state bird

American Black Bear
New Mexico state animal

Animal Life Cycles

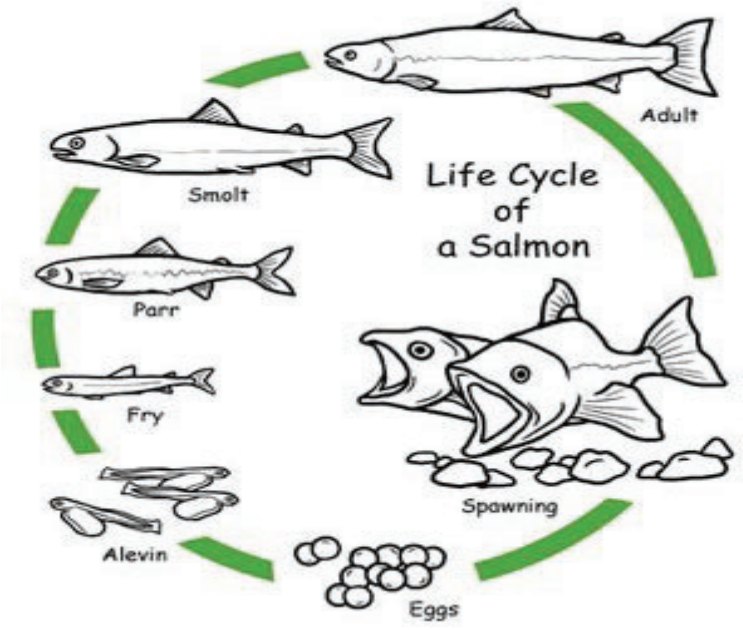
Animal life cycles are fascinating processes of how animals live and grow. Below are four diagrams that talk about the life cycles of different animals and one insect. Each diagram is depicted as a circle to show the circle of life, and represent all stages of life from birth to death. Read the descriptions next to each diagram to learn more about that animal's life cycle.

You and those in your household can play Life Cycle Ball. In this game, you throw a ball around to memorize the life cycle of a specific animal. Each time someone catches the ball, they have to say the next phase in that animal's life cycle.



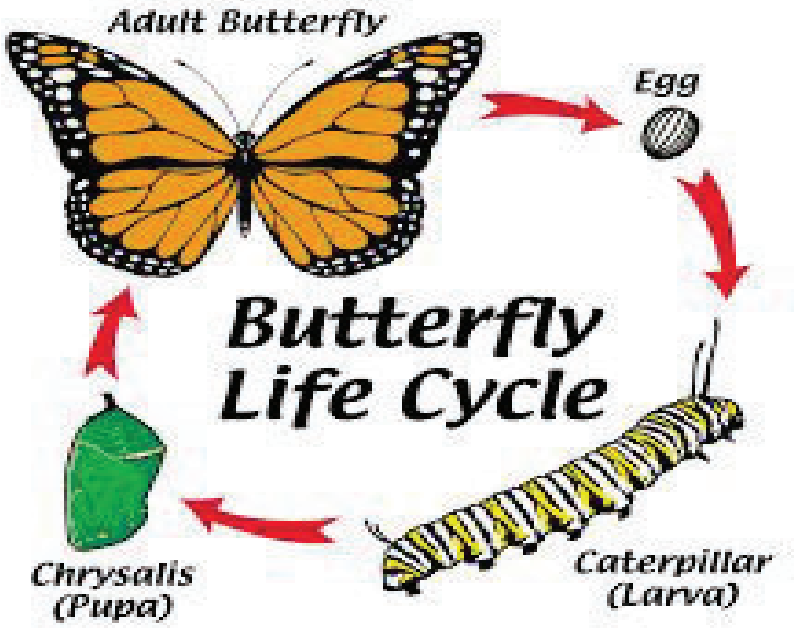
Frog Life Cycle

Eggs: Frogs lay eggs that hatch in 1-3 weeks.
Embryo: Frogs fully develop into an embryo before hatching.
Tadpole: Once the egg hatches, the embryo becomes a tadpole. Tadpoles use gills to breathe and do not yet have legs.
Tadpole with 2 Legs: The tadpole begins to grow its front legs using nutrients stored in its tail.
Tadpole with 4 Legs: Once the tadpole develops four legs, its tail is almost completely gone, and it can even hop onto dry land.
Adult Frog: An adult frogs tail completely disappears, and it begins to eat insects. An adult frog will keep growing for 2-4 years. Some frogs can live up to 12 years!



Salmon Life Cycle

Eggs: Salmons begin their lives as small eggs that are lain in freshwater rivers.
Alevin: After several months, the eggs hatch and the small salmon are called alevins. They hide under small pebbles in rivers and eat the yolk sac of their eggs for nutrients.
Fry: Alvenins grow into fry after 4-6 weeks. Fry begin to swim around and eat microscopic organisms.
Parr: Salmons reach the parr stage after a year of life. They eat insects and are about the size of a crayon.
Salmot: The fish continues to grow, and can swim out of a river into the ocean. At this stage, the fish can osmoregulate, meaning they can control the amount of salt in their bodies.
Adult: Salmons are now fully grown and live in saltwater seas and oceans. They can swim hundreds of miles and eat smaller fish.
Spawning: This is the process of salmon laying eggs. An adult female salmon can lay up to 5,000 eggs!



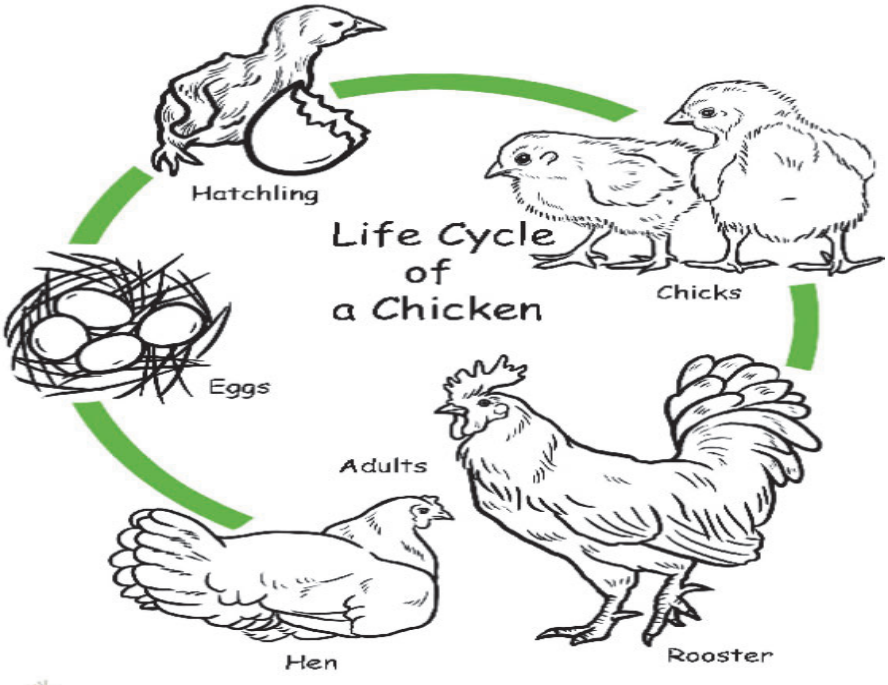
Butterfly Life Cycle

Egg: Butterflies lay their eggs on leaves. Some species of butterflies eggs take several weeks to hatch, while other species eggs only hatch when it is warm.

Caterpillar: A caterpillar eats its way out of the egg, and immediately begins to eats the leaves around it. A caterpillar can grow up to 100 times larger than it was in its egg.

Chrysalis: The fully grown caterpillar forms itself into a chrysalis or pupa. This stage may last several weeks or months depending on the butterfly species. In the chrysalis, the caterpillar begins to transform into a butterfly.

Butterfly: The chrysalis opens to reveal a fully grown butterfly. The butterfly hangs on the chrysalis case after it emerges to allow its wings to dry before it takes flight.



Life Cycle of a Chicken

Egg: A hen (female chicken) lays eggs. The eggs take about 21 days to hatch.

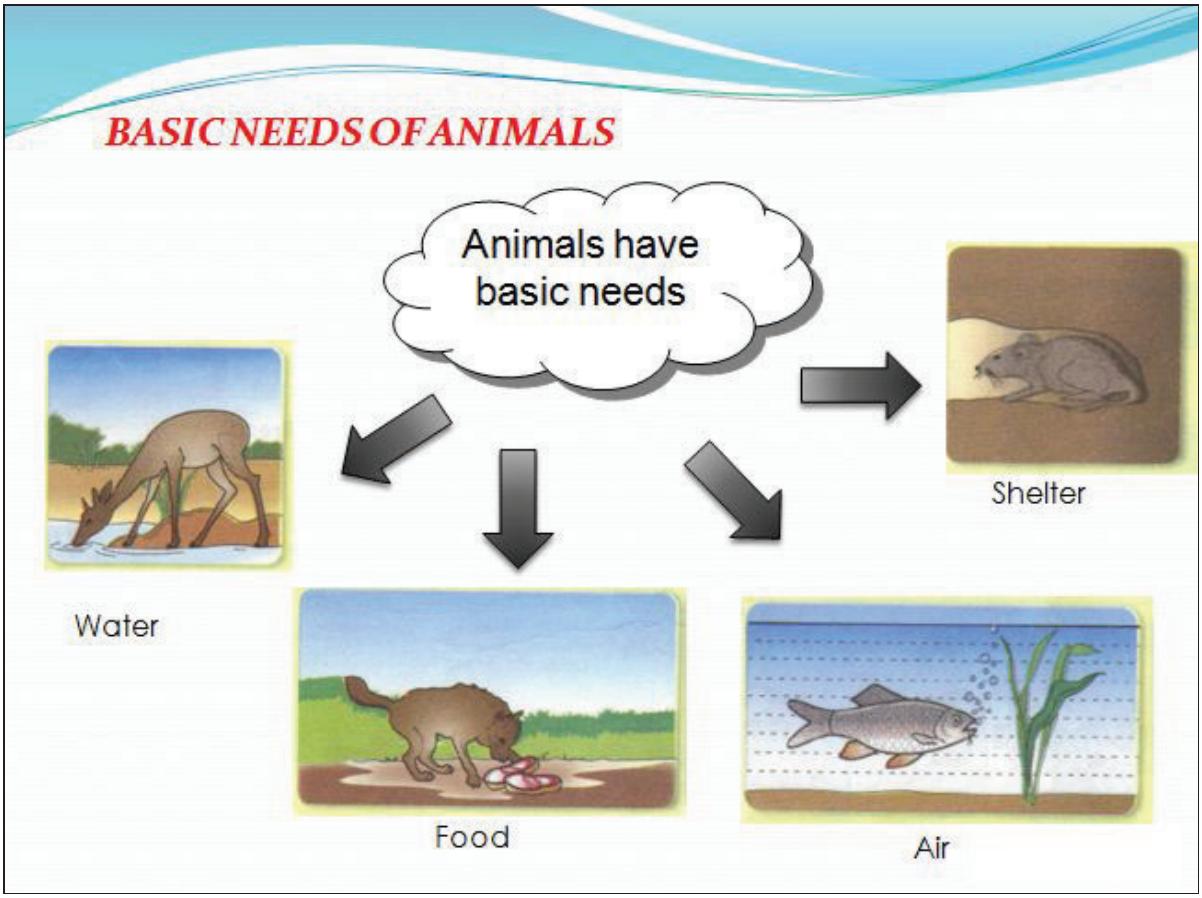
Hatchling: Immediately after the egg hatches it reveals a baby chick, called a hatchling. The nutrients from within the egg sustain a hatchling for 24-72 hours.

Chick: The hatchlings grow into chicks, walking around and eating small crumbs of food and drinking water. Chicks must be kept warm, so they stay close to their mothers for warmth.

Rooster/Hen: A rooster is a fully grown male chicken, while a hen is a fully grown female chicken. Chickens typically live between 5-8 years.

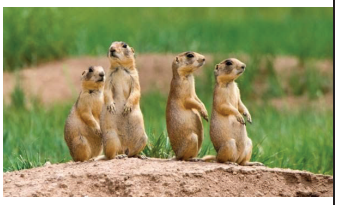
Animal Adaptations

Just like people, animals have basic needs that enable their survival. Like us, animals need water, food, clean air, and shelter.



A fun game you can play is Adaptation Toss. Choose a specific animal, and then toss a ball around and list out what specific things that animal needs to survive. You may list things such as where they live, such as the desert, ocean, plains, or what they like to eat, such as if the animal is a carnivore (only eats meat or other animals), herbivore (only eats plants) or omnivore (eats both plants and animals).

Look at the chart and images on the next page to get some ideas, and to see some of the needs of animals of the Southwest! After playing Adaptation Toss, choose an animal from the chart below, or think of your favorite animal, and draw their habitat, what they eat, and where they live in your Nature Journal. You could also draw your own habitat, such as where you live and what you like to eat!

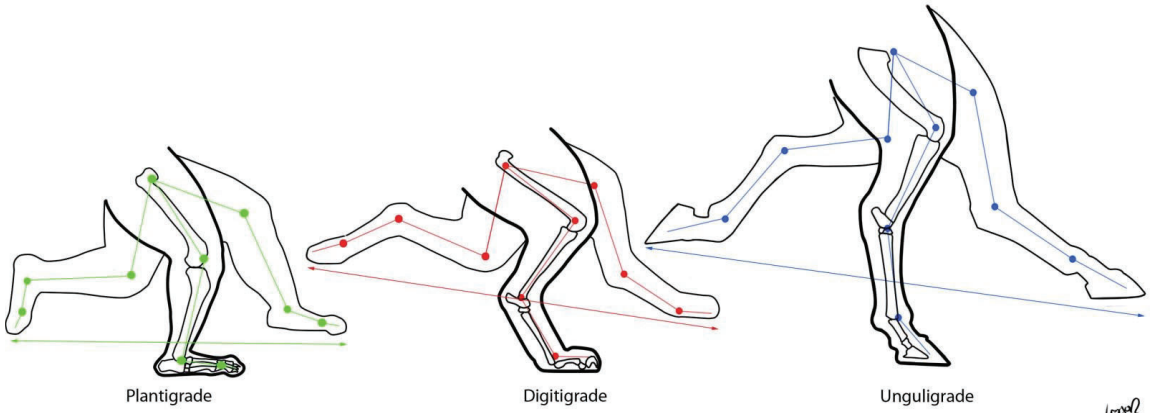
Animal	Image of Animal	Habitat	Diet	Shelter
Coyote		Coyotes live in North America, in mountains, forests, and plains.	Coyotes eat rodents, fish, rabbits, frogs, and even larger animals such as deer. Coyotes are solitary, but hunt in packs to get larger prey.	Coyotes are nocturnal, meaning they sleep during the day and awake at night. Coyotes like to burrow in tall grasses to sleep and rest.
Prairie Dog		Prairie dogs typically live in dry, flat grassland areas that have little vegetation.	Prairie dogs are herbivores, although they also eat some insects. Prairie dogs are also an important source of food for larger predators such as coyotes, foxes, and hawks.	Prairie dogs are very social, and live in large groups. Prairie dogs live in underground burrows that have a complex system of tunnels.
Wild Turkey		Wild turkeys live in forests year round, and can even be found in Canada and parts of Mexico.	Wild turkeys are herbivores, meaning they only eat plants. These plants include acorns, seeds, buds, berries, and more.	Wild turkeys make nests on the ground, typically by trees, using dead leaves and brush.
Elk		Elk live throughout North America, but are densely populated in the western United States in forests and open mountains. Elk are social and live in herds. Some herds can have over 400 Elk!	Elk are herbivores, eating grassess, foliage, and flowers such as dandelions, clovers, and mushrooms.	Elk sleep in groups on the ground in wooded areas. They find patches of grass or dead leaves to rest on.
Western Diamondback Rattlesnake		The Western Diamondback Rattlesnake lives throughout western Texas, New Mexico, Arizona, southern California, and Mexico.	The Diamondback Rattlesnake is a carnivore, eating small mammals such as mice, rabbits, prairie dogs, and squirrels.	Diamondback rattlesnakes coil in piles of shrubs or rocks, or burrow in the homes of other animals. In the winter, Diamondbacks hibernate in burrows or caves.

How Animals Move

Animals use many different mechanisms for locomotion (movement). Like humans, mammals have appendages that aid in their ability to walk, run, hunt, and live.

Many mammals have a plantigrade posture. Plantigrade posture means that the whole surface of the foot touches the ground while walking. Humans, bears, and baboons have plantigrade postures. Stand up and walk a few steps. Are you walking on your toes, or heels? Nope! When you walk you use the whole surface of your foot! Other mammals are digitigrades, meaning that their heels are located higher up on their legs, and they walk completely on their toes. When digitigrade mammals walk, their heels never touch the ground! Take a few steps and walk only on your toes. It is tricky isn't it! Mammals that are digitigrades include, dogs, cats, and ostriches. One more type of posture is unguligrade, meaning that the mammal walks on hooves. These mammals include horses and deer.

Look at the image below to learn more about the structure of the foot across these postures.



A great game you can play related to mammal locomotion is Animal Charades. Animal Charades is just like regular charades, but using only animals. You and whoever you are with take turns acting out animals. While one person acts out an animal, the others have to guess what animal is being acted out. Write out animals on scrap pieces of paper, and put them in a bowl or hat. Each person takes a turn and randomly selects an animal to act out.

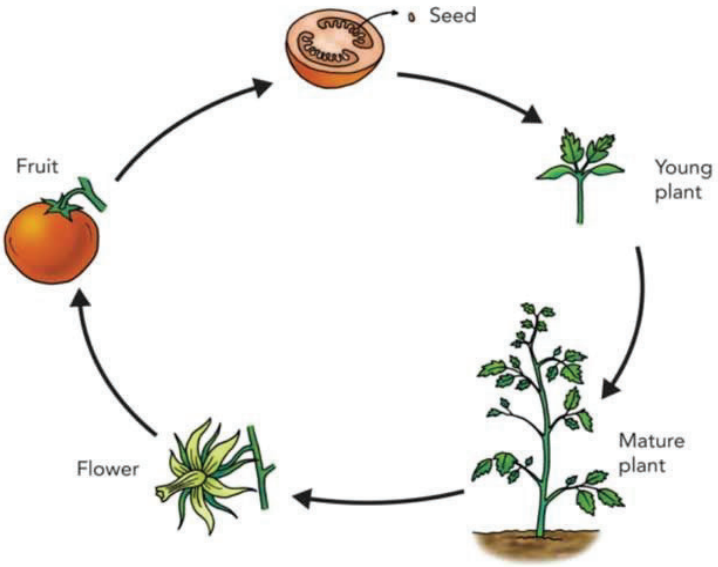
Listed below are some native New Mexican animals you can use. You can also use any of your favorite animals too!

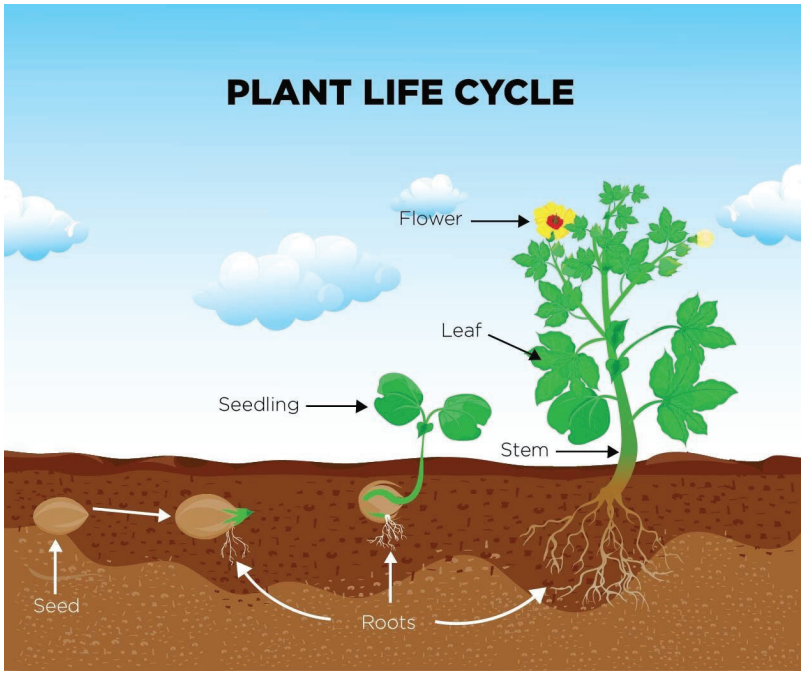
- American Black Bear
- Bighorn Sheep
- Cougar
- Jack Rabbit
- Kangaroo Rat
- Porcupine
- Elk or Deer
- Diamondback Rattlesnake
- Coyote
- Roadrunner

Activities about Plants

Life Cycle of Plants

Plants live and grow, just like we do! If you look out your window there are so many plants around you. Maybe you see shrubs, flowers, or a cactus! Whatever plant it may be, all plants have similar life cycles. Check out the pictures below to see more about how plants grow.





Every plant starts out as a seed. From there, if the seed finds a good plot of land with access to water and sunlight, it begins to grow into a little sprout. Eventually, with enough water, sunlight, and time, the plant grows to be fully mature, having branches, leaves, and some plants even produce flowers and fruit! While a tomato plant like the one you see above on the left takes only 20 to 30 days to fully grow and mature, a larger plant such as a pine tree can take up to 50 years to grow to its full height!

Grab your Nature Journal and draw the life cycle of your favorite plant. You could draw a type of flower, tree, cactus, or shrub!

Plants in my Backyard

New Mexico is home to a wide variety of plant life. However, New Mexico only receives about 14 inches of rain every year, so plants that live here have to be resilient and thrive in a dry, warm, sunny climate.

One plant commonly found in New Mexico is the Yucca. There are 49 different species of Yucca, many of which grow in New Mexico. Yuccas can grow to be between 1-3 feet wide, and 4-6 feet high. This plant grows flowers and blooms in the spring and summer time, and its flowers are eaten by birds, mule deer, and antelope. Look at the image below to see a Yucca.

Picture of a Yucca plant at White Sands National Park in Southern New Mexico.

Look out a window or go into your yard, and in your Nature Journal, draw a plant that you see! Maybe you draw a Yucca, a flower, or a tree! If you don't see a good plant in your backyard you can always draw a different type of plant that you like.

Plants of Prey

In order to “eat” plants undergo a process called photosynthesis. Photosynthesis is the process of plants making their own food. For photosynthesis, a plant absorbs water, sunlight, and carbon dioxide from its surroundings, and turns it into glucose (a kind of sugar), providing the plant with energy.

However, there are unique species of plants that can photosynthesize, but thrive most when they eat real living creatures. Look at the images below to learn about how and what these predatory plants eat!

In your Nature Journal, make up and draw your own predatory plant! What does it eat? Where does it live? Is it a large plant, or a small plant? Get creative! You can also try building your own predatory plant with craft materials, such as toilet paper rolls, scrap paper, or cardboard.

Venus Flytrap

- Like other plants, Venus Flytraps gather nutrients from gases in the air and nutrients in the soil. However, they live in poor soil and are healthier if they get nutrients from insects.
- The Venus flytrap tolerates fire well and depends on periodic burning to suppress its competition. Fire suppression threatens its future in the wild.
- Venus flytraps have become domesticated.

California Pitcher Plant

- It’s nickname is “The Cobra Lily.”
- Once insects are inside the Cobra Lily, they become confused by the lights shining down through “windows” created by the plant's internal structure.
- The bottom of the pitcher contains fluids where insects drown after being tired out.

Round-leaved Sundew

- The tips of the stalks have glands that contain nectar. Insects are attracted to the nectar, but if they land on one of these “dewdrops,” they are instantly trapped in a sticky mess.
- It can be used to clear up infections in the throat.
- The swedish use them to make cheese.

Cape Sundew

- It is native to Cape Town in South Africa.
- Insects will land on their leaves and the Sundew will roll onto its prey while the leaves wrap around the prey.
- They take up to 30 minutes to completely eat their prey.
- They can grow up to 10 inches in length.

Waterwheel Plant

- As opposed to the other plants, the waterwheel is an aquatic, free-floating, rootless carnivorous plant.
- Its trap is very similar to the Venus Flytrap.
- It is currently an endangered species.

Nepenthes Rajah

- The Nepenthes Rajah is the largest of the pitcher plant species.
- Inside the pitcher it is filled with 3 and half liters of water and two and a half liters of digestive fluid.
- Ants are their favorite food but they can eat rats, frogs, lizards, and birds.

Common Butterwort

- The Common Butterwort can grow to the height of 3-16 cm, and it is topped with a purple and occasionally white flower.
- They flower between June-July.
- They are also known as a “Bog Violet.”

Sanderson’s Bladderwort

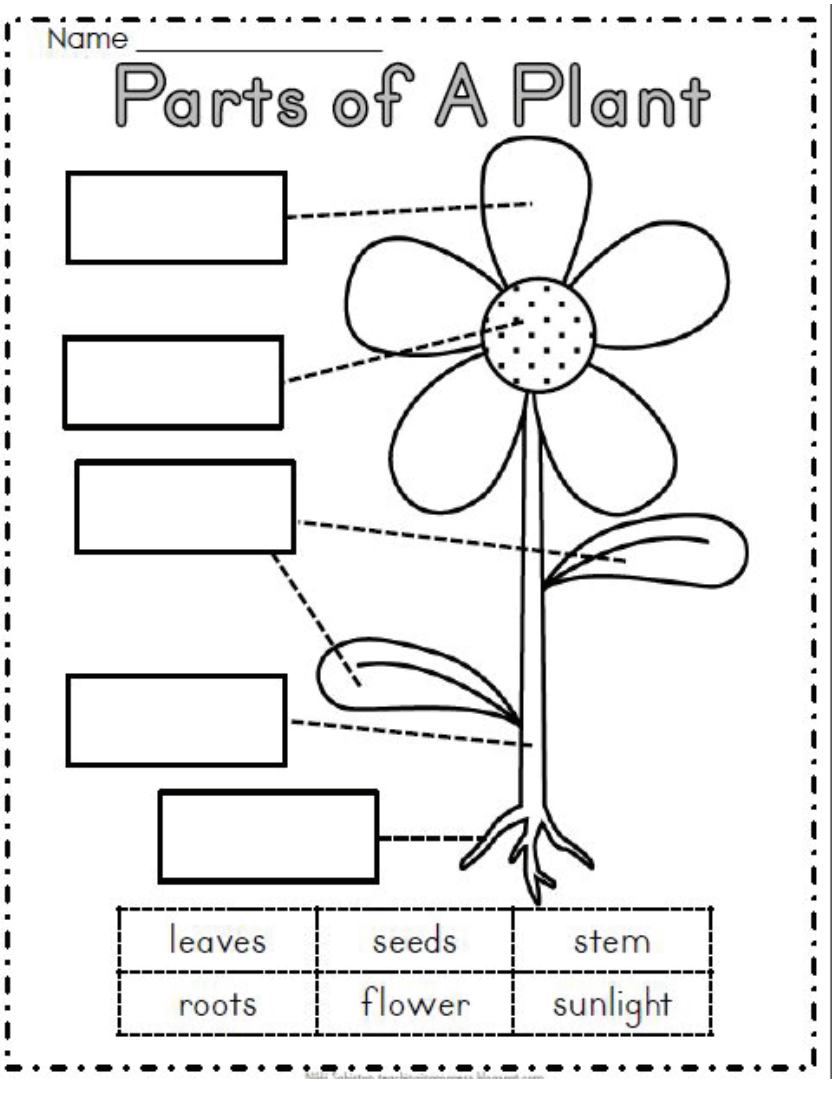
- Sanderson’s Bladderwort most often grows in South America.
- They require a lot of sunlight and water.
- They are very small, at only ½ inch in height.
- The Bladderwort lacks roots.

Parts of a Plant

Plants are made up of many different parts, kind of like people! Plants do not have arms or legs, but they do have other essential parts of their bodies that help them live and grow.

As was mentioned in the Life Cycle of Plants section, all plants start out as seeds. As the plants mature, they begin to sprout their own seeds so that more plants can grow. For example, pine cones are the seeds of pine trees, and their seeds grow on its branches. For plants like flowers, the seeds are stored in the round center of the flower petals. Roots are another important part of any plant. Roots grow underground and help a plant live and grow by absorbing and storing nutrients from soil and water. The stem of a plant grows above ground and provides a sturdy structure for the plant to grow leaves, flowers, and/or branches. The stem also helps distribute water and other nutrients from the roots to other parts of the plant. Leaves are another important part of a plant because it helps a plant photosynthesize (make its own food). As mentioned above, the flower is another important part of a plant because it helps produce seeds so more plants can grow.

Print out the image below, or draw it in your Nature Journal, and see if you can correctly label all of the parts of a plant!



Resources

For more information and activities about animals and plants, visit some of the websites below!

National Geographic Kids

- National Geographic Kids is a great resource for learning about nature and wildlife across the planet: https://kids.nationalgeographic.com/

BrainPOP

- BrainPOP.com has a wide variety of fun, educational games and activities. Follow the link and select the 'Science' tab to learn more about the environment, or explore their other categories: https://www.brainpop.com/

Discover the Forest

- Learn about forests and wildlife in your area at: https://discovertheforest.org/

U.S. Fish and Wildlife

- Learn about Valle de Oro Wildlife Refuge in Southern Albuquerque at: https://www.fws.gov/refuge/valle_de_oro/