

# Vernal Pools

## Sprig Tales Newsletter

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Vernal Pools are small lakes that dot our landscape during the rainy season. Their unique nature gives California a rich diversity of wildlife that cannot be found anywhere else in the world.

### Fun Facts!



Some frogs live in vernal pools and only come out once a year when it's wet!

Many species of waterfowl and migratory birds use vernal pools as rest stops.



Other species spend their entire lives inside these temporary bodies of water!





# Nature's Swimming Pools

Vernal Pools are a very unique ecosystem that are hosts to several species of animals and plants not found anywhere else in the world.



The Fairy Shrimp are one such species that are found inside these shallow pools. These shrimp are an important food source to many of the pool's inhabitants and visitors. They feed on the tiny microbes that thrive in these waters, which is shared with many kinds of insects. Fairy Shrimp are then eaten by many others including ducks and frogs. In this way, larger predators, such as the Red

Tailed Hawk, are dependent on Fairy Shrimp since their prey feed on them. Without them, Vernal Pools would not have such a wide variety of animals.

These pools are created when rainwater falls onto the ground and is unable to sink. This is due to the formation of a layer of clay known as hardpan, that prevents the water from sinking. As the year progresses, the water is slowly evaporated by the sun. This slow drying is what gives Vernal Pools their unique variety of life. The many different plants that inhabit these pools do not all grow at the same time. As the pool dries there are different levels of water left around the edges. Many flowers will only grow if there is a certain amount of water in the soil. One kind of flower requires a mold, which is found in the center of these pools, in order to grow. This is how Vernal Pools gain their unique "rings" of color around the edges.

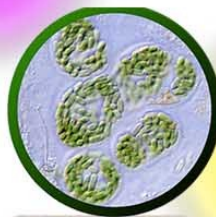






# Food Web

Did you know that fairy shrimp indirectly feed other animals? Guess who eats who by drawing arrows connecting the prey and predator!



Microbes



Plants



Insects



Fairy Shrimp



Snails



California Tiger Salamander



American Bullfrog



Red Tailed Hawk



Duck

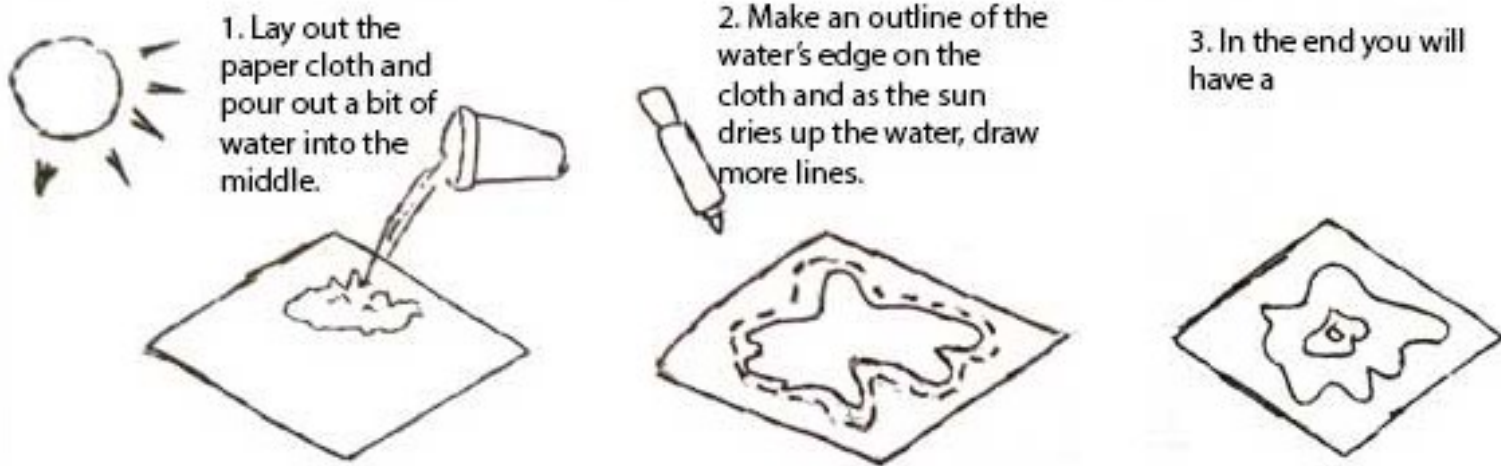
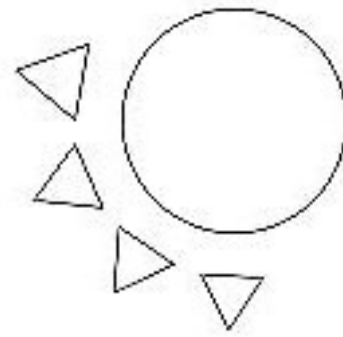
\*Answers are on the back.

Answer: **Microbes** are eaten by Insects, Fairy Shrimp, and Ducks. **Plants** are eaten by Snails and Ducks. **Insects** are eaten by Salamanders and Bullfrogs. **Fairy Shrimp** are eaten by Bullfrogs and Ducks. **Snails** are eaten by ducks. **Salamanders and Bullfrogs** are eaten by Hawks.

## Fuel By Rain, Dried by the Sun

Now that you have learned about Vernal Pools, you can explain their yearly cycle with this simple demonstration!

**Materials:** Paper Towel, Pen, Cup of Water, and the Sun!  
**Be sure to ask for permission before going outside!**  
**Time:** At least 15 Minutes, depending on the weather.



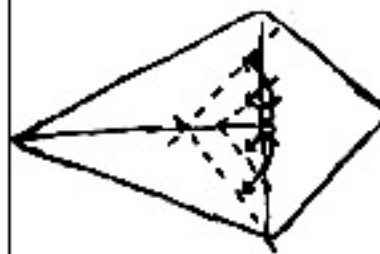
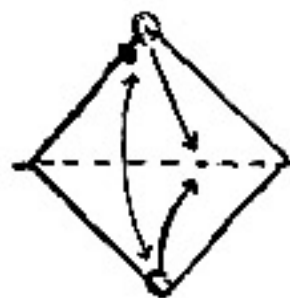
3. In the end you will have a \_\_\_\_\_ !

## Bird Crafts Goose

**Materials:** All you really need is a square piece of paper!

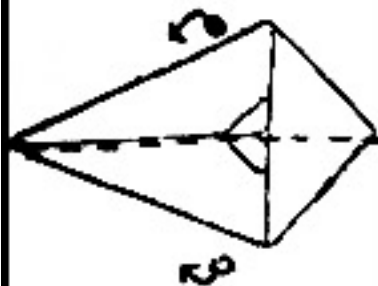


1. Make a crease down the center and then fold the corners upwards to make a kite shape.

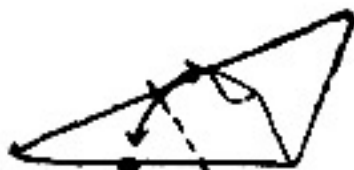


2. Next make the following creases. These will be the tiny wings.

3. Fold the kite in half.



4. Make a crease in the middle following the line.



5. Here it gets tricky. To make the neck open the bottom fold while pressing down to reverse the fold.



6. Likewise to make the head repeat the previous steps.

