

Create a Poison Dart Frog

Summary

By painting their own Poison Dart Frog, students will learn about Poison Dart Frogs, including why they are brightly colored and where their name came from.

Materials

Air Dry Clay
Tempura Paint (as many colors as possible)
Frog cookie cutters
Paintbrushes
Water

Background

Poison Dart Frogs are brightly colored. They can be blue, red, black, neon green or any other color of the rainbow. Why would a frog want to stand out in the wild? Wouldn't their bright colors make them susceptible to predators? Poison Dart Frogs are brightly colored to warn predators they are poisonous. They have special skin glands that produce poisons. Predators quickly learn that bright colors mean sickness or death. If the predator tries to eat the poisonous frog, they will either become sick or die.

Poison dart frogs are aptly named because indigenous South Americans use their poison to make poisonous darts for hunting. The people would carefully capture the frog and then rub the tip of their dart on the frog's skin. The dart would then be more effective on the prey the natives were hunting. Only the deadliest Poison Dart Frogs were used in this manner, but the name has stuck!

Procedure

- Ask the students to tell you the colors of common frogs. Make a list of their answers on the board. The students probably will not know about the vibrant colors of Poison Dart Frogs. Explain that some frogs can be blue, red, neon green, brown with bright yellow spots and many other colors.
- Describe how the bright colors are used to warn predators that the frogs are poisonous.
 - ◇ Ask the students if they would touch a hot stove or plant with spines. Most will probably say no. Ask them how they learned not to do those behaviors. Explain that often-times, we know not to do things, like touch a hot stove, but we don't remember how we learned that behavior. That is probably the way that many predators remember not to eat brightly colored animals, like Poison Dart Frogs.
 - ◇ Ask the students to raise their hand if they like candy. Ask them if they would like to get a piece of candy from you? Give each student a picture of a piece of candy or some other disappointing representation. Ask the students again if they would like another piece of candy from you. Most will probably say no. Explain that if a predator tried to eat a poisonous frog and got really sick, it would not try to eat another frog that looked like that again. That behavior is similar to the how the students just reacted to the disappointing candy. Over time, the predator learns that brightly colored frogs are poisonous. Ask the students if they are never going to eat candy again because they are afraid it will always be a piece of paper? Will they trust you again to give them a real piece of candy? Most students will not avoid candy just like predators will not avoid all frogs because one frog made them sick. In the future, the predator will just eat frogs that do not look like the frog that made them sick. Therefore, poison dart frogs have to look different so that their predators will always remember the frog that made them sick.



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- Describe how the frogs got their name (see background).
- After providing the class with the background information, tell the students that they will become herpetologists in the Tropical Rainforest. They have just discovered a new species of Poison Dart Frog and they will need to make a model of the newly discovered frog for other students (scientists) to admire.
- Hand out a generous piece of clay to each student. The size of the clay needs to be proportionate to the size of the cookie cutter. Have the students flatten their clay into a pancake.
- While the students are working on their “pancakes”, hand out the cookie cutters, paint, paint brushes, aprons or any other craft supplies.
- The students then press their cookie cutter into their clay “pancake” and remove the shape of their frog from the cookie cutter.
- Give the students time to paint their frog. They can design it any way they like as long as it is colorful and memorable.
- The frogs should remain in the classroom over night to allow the paint and the clay to dry.
- After they have painted their frog, have the students write a paragraph describing their new frog: its name, size, color, pattern, and habitat. Remember, these are imagined frogs, so they can have very unique characteristics and habitats. The more creative, the better.
- Optional: Have the students display their frogs along with an index card describing their new species of frog.

