

Beaded Chameleon

Video Instructions



<https://youtu.be/qmVZY79CDX4>

Background

The sun provides us with energy. This energy comes to Earth in a few different ways: visible light we can see, infrared radiation you can feel as heat, and UV radiation that cannot be seen or felt. UV radiation can be called UVA, UVB, or UVC. Plants and animals need sunlight to help them grow and function, but too much of the sun's rays UV radiation can sometimes be bad for some organisms, like humans. Chameleons, however, need the sun and lots of it.

Chameleons need at least 10-12 hours a day of UVB light rays. While chameleons do need lots of UVB rays, they can sometimes become too hot. Chameleons are cold-blooded creatures and must use the surroundings around them to regulate their temperature. Natural chameleon habitats include places where the lizard can move in and out of sunlight to get the UVB light it needs and move into the shade when needed.

Questions

- What does a good habitat for a chameleon look like?
- How can you tell if UVB light is present?

Materials

- 5 green pipe cleaners
- 20 beads
- Scissors
- Hot glue gun with glue sticks

Procedure

1. Make the head of your chameleon. Use one pipe cleaner and form one end into a round or oval shape. Twist the end around to close the loop. The rest of the pipe cleaner will remain straight as the body of the chameleon.
2. Use a second pipe cleaner to fill in the head. Attach this pipe cleaner just below the loop of the head. Twist to attach, and then wrap the pipe cleaner around and through the head loop to fill it in. Twist it around the body to make sure it stays attached. Get creative in how you wrap and fill to make the head look the way you want it to.
3. Take a third pipe cleaner and fold it in half. Fold each half in half again, so you have a pipe cleaner with four segments. Cut all four segments apart. These will form your chameleon's legs.
4. Take two of the leg pieces and fold them in half. Attach the folded point of one leg piece to the body of the chameleon just around the neck. Twist it closed around the neck and fan out the ends. Repeat with the other leg piece so that you have two front legs, one on each side of the body. Each leg should have two toes, just like a chameleon. Set the remaining two leg pieces aside for later.

CONTINUED ON NEXT PAGE

5. String all but a few beads onto a fourth pipe cleaner. Attach one end of this pipe cleaner to the body, just below the neck. Once it is attached, space out your beads so there is a little space between each one. Wrap this beaded pipe cleaner around the body of your chameleon to make its torso. Shape it however you wish, but be sure twist both ends tightly onto the body so that the beads stay in place. Also make sure you have a little empty space at the tail end of your body pipe cleaner to create a tail and attach the remaining legs.
6. Use the remaining two short pipe cleaner pieces, or legs, and attach them at the back end of the torso to form the back legs, just as you did in step 4 above. You should have two back legs, each with two toes.
7. Glue two beads to the head of your chameleon to make the eyes.
8. Curl the remaining end of the pipe cleaner to make a curly tail for your chameleon. If you have additional pipe cleaners remaining you can use them to create more shape or body to your chameleon. You can also use an extra pipe cleaner to create a hook or use a safety pin to attach your chameleon to a bookbag or key ring.
9. Take your chameleon outside and observe what happens to your beads.
10. The beads on your beaded chameleon are special UV beads that react when UV radiation is present. Use your beaded chameleon to find the best location for a real life chameleon to spend its time.

Extensions

- Read more about chameleons.
<https://animals.sandiegozoo.org/animals/chameleon>
<https://kids.nationalgeographic.com/animals/reptiles/facts/chameleon>
<https://nationalzoo.si.edu/animals/mellers-chameleon>
- Read a story about chameleons, *A Color of His Own*, by Leo Lionni. Compare the story to what you know or research about Chameleons. Compare and contrast the story to real chameleons.
- Create a habitat for your model chameleon that would provide everything a chameleon might need.
- Use your chameleon to evaluate and serve as a reminder for when you should use sunscreen.

