

Chromatophores

A feature of some herpetiles' skin is its ability to change color. Skin cells called *chromatophores* contain pigments and are responsible for the color change. Changes occur from fear, but also from fluctuations in the amount of light present, humidity, and air temperature. Warmer temperatures cause the chromatophore pigments to contract, which makes the dark-colored pigments harder to see. Therefore, the herpetile's skin becomes lighter. With cooler temperatures, the chromatophores usually spread out allowing more of the dark coloring to show. This causes the skin to appear darker. A few herpetiles can become a different color altogether. Two of these species are the Anole and the Chameleon. To view this amazing chromatophore phenomenon, follow the directions below.

Materials

- one copy of the Anole Grid (page 45), reproduced onto cardstock
- a green crayon or marker
- a brown crayon or marker
- scissors
- glue

Directions

1. Color Box A's Anole light green and its background dark green. Color Box B's Anole light brown and its background dark brown.
2. Cut away Box A and Box B. (Note: You will now have three sections: A, B, and C.)
3. Fold Box C on its dashed lines using an accordion-style-folding pattern; crease the fold lines. Re-open the folds and lay Box C as flat as possible on a desk or tabletop.
4. Carefully cut apart Box A along the dotted lines. (**Note:** Be sure you keep the nine cut strips in their correct sequential order.) From left to right, glue the green strips onto the Number 1-striped sections of the Box C accordion folds.
5. Carefully cut apart Box B along the dotted lines. (**Note:** Be sure you keep the nine cut strips in their correct sequential order.) From left to right, glue the brown strips onto the Number 2-striped sections of the Box C accordion folds.
6. After allowing the glue to dry, re-fold the accordion pleats. Unfold pleats slightly and place the Box C section in an up-right position. When viewing the folds from a left-side angle, a green Anole will be seen. When viewing the folds at eye level from a right-side angle, the Anole's chromatophores will have changed to brown.



