# Herp Camouflage

PA HERP
Teacher's Zone

**Grade Level:**
4-6

**Subject:**
Natural Science/Life Science

**Duration:**
45 minutes for lesson, 30 minutes for activity, 1+ class periods for presentations

**Setting:**
Classroom

**Vocabulary:**
Camouflage, Predator, Prey, Defense, Aposematic coloration, Mimicry, Concealing coloration, Countershading, Disruptive coloration

**Lesson By:**
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**Summary:**
Students will learn the importance of how camouflage can enable reptiles and amphibians to blend in with their natural habitat. Students will select a reptile or amphibian line drawing, cut it out, and color it to blend in with something inside the classroom.

**Objective:**
- Students will be able to identify examples of camouflage and how it's critical to the survival of many species of herps in the natural world.
- Students will learn that many individuals of the same species have a variety of colorations that help them to adapt to their surrounding habitat.

**Materials:**
- Photos of reptiles and amphibians in their natural habitat, illustrating the different types of camouflage.
- Line drawings of different species of reptiles and amphibians.
- Paper, pen, construction paper, scissors, glue, colored pencils or crayons.

**Background:**
Often vulnerable to predators, reptiles and amphibians rely on camouflage to survive and to avoid being eaten. Some are dull earth tones, some are brightly colored and some can even change colors, thus helping them blend in with their natural environment. Sometimes, colorations can vary from individual to individual within a species depending on their habitat.

Some reptiles and amphibians use different colorations and patterns to conceal themselves and others may stand out by mimicking the bright colors of other animals that are harmful to predators. Many herps use concealing coloration that helps them blend into their surroundings. Some species use countershading - a form of concealing coloration in which the upper surfaces of the body are more darkly pigmented than the unilluminated lower areas, giving the body a more uniform darkness and a lack of depth relief. An example of concealing coloration would be a green snake hiding within a group of vines.

Other herps make use of patterns like spots, or stripes to "break up" their outline so they don't stick out against a background. This type of camouflage is called disruptive coloration. An example of disruptive coloration would be a wood frog with its brownish coloration and black markings along the face and faint lines on the back that help it to blend in seamlessly to the forest floor.

Some herps stand out in their natural settings by being brightly colored in red, orange, or yellow. These species use aposematic coloration or mimicry. Aposematic coloration is used in many amphibians to warn would-be predators that they are toxic. Mimicry species are not toxic but have similar colors and patterns of toxic species that are found within the same environment. One example would be the eft stage of the red-spotted newt that uses aposematic coloration and the harmless red salamander that mimics the toxic newt.

**Preparation:**
The materials needed for this lesson can be found through online sources; some maybe found within the compressed file and provided with this lesson.

Art materials will need to be handed out or made available to the students.

**Procudure:**

1.Discuss the usage and types of camouflage used by reptiles and amphibians
2.Discuss why camouflage is an important characteristic.
3.Review materials.
4. Have students pick a reptile or amphibian line drawing and color/paint it to blend into a space within the classroom. Have the students imagine the classroom is a natural habitat. Once they have finished coloring their animal to match a particular spot in the classroom, have them place it in that location without covering it or placing it under any objects.

(Students may also pick animals that stand out and illustrate aposematic coloration or mimicry and have the students explain the advantages and disadvantages of this type of coloration.)

**Conclusion:**

Camouflage plays an important role in the survival of reptiles and amphibians. Have students look over the results and compare the colored camouflaged drawings to a blank one.

**Assessments:**

Standard tests can apply here, but students can also be graded on the creativity of their coloring and how well their animal blended into its classroom environment.

**Extensions:**

***Can You see me?***

During the lesson you may also have students look at photos of well camouflaged reptiles and amphibians and see if they can find the hidden animal.

**Resources:**

“Reptiles and Amphibians of Pennsylvania and the Northeast” by Hulse, et. al

http://www.anapsid.org

**Notes:**