

Reptiles (Herpetology) Pre-Post Trip Activities

Activity 1. First Impressions

Students respond differently to different animals. Prepare a series of cards showing a variety of different reptiles and amphibians. Have a board with different reactions such as being afraid, excited, or grossed out for students to react to each animal shown. Talk about why some might have different reactions based on myth or stereotypes. Then have students research the animals shown. Redo the reactions after presenting research to see if their “first impressions” have changed and why it's important to base perceptions on the best information available.

Activity 2. Hiding and Adaptations

Create newspaper cutouts of snakes. Have students find these reptiles on the newspaper to learn about camouflage. Students can also partake in a hide and go seek activity in the classroom. Have groups of students create their own reptile which will be hidden in the classroom. Count how many students found each group's unique reptile and then discuss what adaptations made some reptiles harder to find. (More instructions can be found on page 4).



Activity 3. Finding Similarities

Create cutouts or photos of various reptiles and amphibians from around the world. Have the students group the animals in as many ways as possible. As an extra bonus, have students try to identify what reptiles and amphibians were given to them. Grouping examples- all reptiles that live in the desert, reptiles and amphibians that are green etc.

Activity 4. Research Invasive Species

Invasive species are becoming more common in many areas. Have students research an invasive reptile. Describe its native range, how or why the species got to its new location, how far it traveled, what characteristics helped it thrive in its new location, and what effect it has on other species or on the environment. Discuss ways to limit the spread of invasive species.

Activity 5. Whatcha Eatin'?

Show examples of different reptile mouths and/or teeth. These could range from alligators with big teeth down to a sea turtle's beak. Ask the students what they think each animal eats based on their observations. Determine if the reptile is a carnivore, omnivore, or herbivore. How does their dentition enable the capture and consumption of their diet?

Activity 6. Heat Vision

Some snakes have specialized pits that allow them to have thermal vision. Set out blocks or balls to represent mice in an open area where students can crawl. Half of the students will be blindfolded representing snakes without heat sensing and the other half will be able to see representing heat sensing snakes. Let all the students crawl around collecting mice until all are collected. Count how many mice the heat sensing snakes caught and how many the regular snakes caught. Discuss the results.



Activity 7. Slither Like a Snake

Snakes are very flexible due to their high number of vertebrae (200-400). Have students lay on their bellies and wiggle side to side to get to a specific destination. Then investigate the body plan of a snake and the different methods they can employ.

Activity 8. Build Your Own Turtle

Learn the parts of a turtle shell by building it! Decorate two paper plates, one to resemble the top shell on a turtle and one to resemble the bottom shell. Staple together on sides only. Make sure to label the important parts (scutes, plastron, bridge, carapace). Your students can create their own legs and head with paper or put your arm into a green sock that you have glued wiggly eyes on and slip it through the two plates to make a puppet!



Activity 9. I Used to Think/ Now I Know

As a pre-visit activity, have each student write down all the facts/information they know about/think about reptiles including turtles (semi-aquatic, aquatic, and land), alligators, and snakes. Then, as a post-activity, have the kids go back to what they wrote down and have them write what they learned about each animal next to what they previously thought.

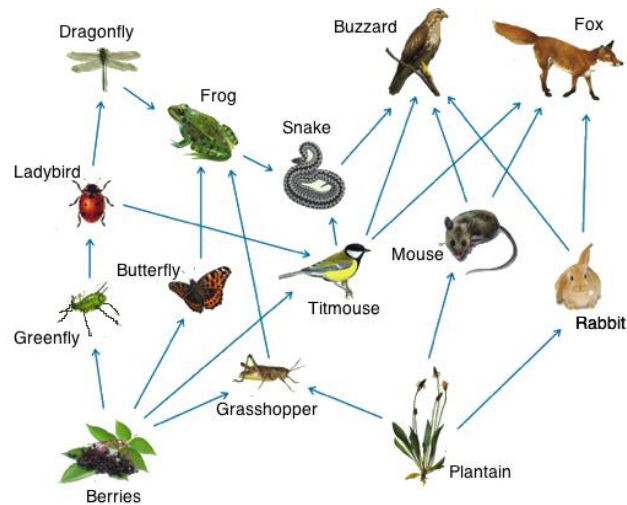
Activity 10. What Would Happen?

Assign each student a specific reptile. Have the students research what would happen if their species went extinct, and how would it affect the ecosystem? Is the species a keystone species? What other species could be affected? How would humans be impacted? Present findings to the class.

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Activity 11. Food Webs/Trophic Cascades

Create your own food web and see first-hand how eliminating a *keystone species* can affect the ecosystem all the way down. Start by giving every student a picture of 1 species from an ecosystem. Make sure to include all types of animals, from mosquitos to mountain lions! Have the students stand in a circle and give one student a ball of string. Have them hold onto the end of the string and throw the ball to someone holding an animal that would be either their prey or predator. Make sure that the recipient of the ball of string holds onto the strand and passes the ball along, keeping the string tight with little slack. Keep passing the ball of string until everyone is part of the web. Have everyone take a step back and pull their strings as tight as they can without breaking it, and then cut the string on the top predator in the ecosystem. Watch as your string web falls apart, and debrief about how this is similar to ecosystems when important species are taken out.



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Additional Instructions

Activity 2. Hiding and Adaptations

Materials needed:

- ✿ Newspaper
- ✿ Tape
- ✿ 3 colors of construction paper
- ✿ scissors
- ✿ markers

Part 1:

- ✿ Cut out three snakes or turtles in each color of construction paper.
- ✿ Cut out three snakes or turtles in the newspaper.
- ✿ Tape all of these onto another newspaper trying to hide the newspaper reptiles.
- ✿ Create a map of the classroom (for part 2).
- ✿ Give the students 20 seconds to count how many reptiles are on the newspaper and see if they were able to see all of them.
- ✿ Explain that reptiles are very good at blending in with their surroundings because of their patterns. Explain that some even look like venomous snakes in order to ward off predators.

Part 2:

- ✿ Split your class up into groups of 2-3.
- ✿ Each group is to create a reptile that can be placed in plain view in the classroom and not be seen by the other teams. Reptiles must be a minimum of 6 inches x 2 inches.
- ✿ Give them time to examine the room and create their reptile.
- ✿ Once they have completed their reptiles, have everyone leave the classroom and let teams go in one at a time to hide their reptile. They should be placing their reptile and exiting the classroom.
- ✿ Give each team a map of the classroom and allow them 2-3 minutes to try to find each reptile. Have them mark on the map where they find each one.
- ✿ Tally the number of students who found each reptile. Best hidden reptile wins.
- ✿ As an evaluation, ask the student teams to describe their reptile's adaptations to its classroom habitat.

For older students, you can assign a brief research assignment about camouflage in reptiles.

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