

Lesson Plans

Hooray for Herps!

Adapted from Ranger Rick's Nature Scope: Let's Hear It For Herps

Activity Description:

Organize a public relations campaign to help give snakes a more positive image.

Materials:

- Markers, crayons, colored pencils, etc.
- Poster Paper (optional) otherwise, normal sized blank paper
- Reference materials (internet, books from the library, etc.)

Age Level:

4th -6th grade

Time:

30-40 minutes

Objectives:

Discuss why some people dislike snakes. Name several positive things about reptiles (or snakes in general).

Subjects:

- Science
- Language Arts

Introduction:

How often do you hear someone say something good about a snake? Or a lizard, or crocodile, or iguana? Probably not too often. Over the year, some reptiles (or herps as some people call them) have been given a pretty bad reputation.

In this activity your students can do something to improve people's opinions about herps by organizing a herp public relations campaign. Begin by discussing the students' reaction to different kinds of reptiles. How do they feel about snakes, iguanas, alligators, crocodiles, skinks, and lizards? You'll probably find that the students, like many other people, have a lot of negative feelings about certain reptiles, such as snakes.

Then explain that many people have negative reactions to reptiles because they just don't know much about these creatures. Tell the students that their challenge is to help change the way people think about herps by launching a public relations campaign for snakes. Divide the students (if possible) into groups of 4 or 5. If this is not allowed, then each student can work on their individual campaign poster on their own. Then either assign

each group (or individual) a snake, or have them find one they want to specifically talk about.

Tell the groups, or individual, that they should first try to find out how people feel about their snake. To do this, they should look for ways their snake is portrayed in cartoons, movies, TV shows, advertisements, and social media platforms. They could even survey their friends and family to find out how they feel about their animal. And they could “dig up” any myths or folklore that could explain how people feel about their snake.

Then have students find facts about their snake. What it eats, where it lives, and any other important information. Finally, have the kids in each group, or individual, use the information they’ve discovered to develop on a PR campaign to give their snake a better image. They can design posters, or do a radio or TV commercial, make a rap/song or create a flyer- anything to play up the positive image of their snake.

Wrap Up:

If possible, have students share their public relations campaign. Or, have a “herp day” where you can do a gallery walk of all the artwork, songs, commercials, etc., to advertise the positive image that students have designed for their snake.

Test Your Reptile I.Q.

- True/False Reptiles breathe air.
- True/False Tortoises are just another name for turtles.
- True/False Amphibians are reptiles.
- True/False It's estimated that there are more than 10,000 species of reptiles on the planet, and they can be found on every continent except Antarctica.
- True/False Nebraska has around 100 species of snakes.
- True/False A snake and a legless lizard are the same thing.
- True/False Nebraska has zero venomous species of snakes.
- True/False A garter snake is considered viviparous, meaning they give birth to live young, and do not lay eggs.
- True/False Reptiles are endothermic, which means they get their body heat from external sources, such as basking in sun when cool, and seeking shade or water when hot.
- True/False The Ornate Box Turtle is Nebraska's only native terrestrial turtle.
- True/False Snakes do not have bones.
- True/False Snakes shed from head to tail in one whole section, while lizards actually shed their skin in patchy sections.
- True/False Reptiles digest food slower than mammals do. This is due to a slower metabolism but also the fact that many reptiles do not masticate (or chew) on their prey. Many just swallow it whole.
- True/False All snakes are carnivores.
- True/False A group of turtles is known as a bale.
- True/False To tell the age of rattlesnake you can count the number of segments on the rattle.
- True/False Nebraska has no water moccasins/cottonmouths.

Test Your Reptile I.Q. – Answer Key

- True/False** Reptiles breathe air.
- True/False** Tortoises are just another name for turtles. **Turtles and tortoises are vastly different, although many times they are used interchangeably. Tortoises have more rounded and domed shells, where turtles have thinner, more water dynamic shells. Another major difference is that tortoises spend most of their time on land and turtles are adapted for life spent in water.**
- True/False** Amphibians are reptiles. **Amphibians and reptiles are used interchangeably, however they have not shared a recent common ancestor for over 300 million years. Amphibians have smooth, sticky, moist and highly porous skin where are reptiles have dry hard scaly skin. Amphibians lay eggs covered in a gel-like substance while reptiles lay eggs on land and have a hard protective shell.**
- True/False** It's estimated that there are more than 10,000 species of reptiles on the planet, and they can be found on every continent except Antarctica.
- True/False** Nebraska has around 100 species of snakes. **Nebraska has 29 species of snakes.**
- True/False** A snake and a legless lizard are the same thing. **Snakes and legless lizards are from two entirely different evolutionary lines. Legless lizards evolved from the legged lizards with which most of us are familiar; legless snakes evolved from four-legged snakes that most of us have never seen.**
- True/False** Nebraska has zero venomous species of snakes. **Nebraska has 4 species of venomous snakes; the Timber Rattlesnake, Copperhead, Massasauga, and the Prairie Rattlesnake.**
- True/False** A garter snake is considered viviparous, meaning they give birth to live young, and do not lay eggs.
- True/False** Reptiles are endothermic, which means they get their body heat from external sources, such as basking in sun when cool, and seeking shade or water when hot. **Reptiles are ectothermic.**
- True/False** The Ornate Box Turtle is Nebraska's only native terrestrial turtle.

- True/**False** Snakes do not have bones. Snakes are in fact vertebrates. This means they have a backbone inside their body. Their body is mainly composed of a spinal cord and many, many ribs.
- True**/False Snakes shed from head to tail in one whole section, while lizards actually shed their skin in patchy sections.
- True**/False Reptiles digest food slower than mammals do. This is due to a slower metabolism but also the fact that many reptiles do not masticate (or chew) on their prey. Many just swallow it whole.
- True**/False All snakes are carnivores.
- True**/False A group of turtles is known as a bale.
- True/**False** To tell the age of rattlesnake you can count the number of segments on the rattle. A rattlesnake cannot be aged simply by counting the number of rattles on its tail. There are many factors that affect the length of the rattle including; if the snake was sick, how much food the snake was able to eat, often times the rattle can break, etc. This is simply not a good determinate of age.
- True**/False Nebraska has no water moccasins/cottonmouths.

Reptile Venn-Diagrams

Activity Description:

Students will compare and contrast the similarities and differences between reptiles using Venn diagrams.

Materials:

- Venn diagram worksheets
- Writing utensils
- Visual reference to reptiles

Age Level:

3rd – 4th grades

Time:

30 minutes

Objectives:

Students will be able to identify the similarities and differences between reptiles as they compare and contrast two different species.

Subjects:

- Science
- Language Arts
- Math

Introduction:

Reptiles come in many shapes, sizes, and colors and can be described and identified using language that appeals to our senses of sight, touch, and hearing. When students compare different reptiles, they are more likely to think deeply about the physical and behavioral characteristics that make each unique.

Students may discover unique characteristics that showcase the differences between reptiles and also begin to recognize their similarities. An example of the physical differences students may observe is that snakes do not have legs, whereas legless lizards do. Students may also visually notice the behavioral characteristics that are unique after watching turtles swim, or snakes slither. Students will also notice that most reptiles are cold-blooded, have scaly skin, and lay eggs.

Procedure:

1) Read a story or show pictures to begin a discussion about the physical and behavioral characteristics of reptiles.

2) Engage students in a descriptive conversation about the similarities and differences between snakes, turtles, and lizards. You may first choose to create a T-chart to help graphically organize student answers, listing characteristics of one reptile on one side of the chart and characteristics of another on the other side of the chart. This can be started by asking students an open-ended question, such as what they notice about each animal or what the book says about each animal.

3) Introduce students to Venn diagrams by inserting their answers from the T-chart into the circles on the Venn diagram. Ask them what the reptiles have in common and fill in the overlapping portion that includes shared characteristics.

4) Depending on the ability of students, you may choose to provide a list of key characteristics to be used in the Venn diagram or allow students to research these characteristics on their own or in groups.

5) If available, show students the species side by side, with animals in a tank or outside, so that they may compare and contrast while observing the living species. If living species are not available, prepare pictures for a visual reference.

Wrap Up/Reflect:

- What are the similarities and differences between the reptile species you compared and contrasted?
- Based on similarities between reptiles, how would you define a reptile?
- Attach a picture of a snake and a lizard on each side of a display board or in a T-chart. Create text cards with characteristics that can be attached to the board underneath the animal or in between if the characteristic is shared by both the lizard and the snake.
- Write a comparison essay using the Venn diagram or T-chart that was created.
- Place reptile pictures into a box. Ask students to pull cards out of the box and decide if they are a snake, lizard, or a turtle and explain why.

Reptile Venn diagram



