Nature-Watch Activity Kit

Rattlesnake

(Nature Watch Kit #131)

Kit Contents

	Kit Size	
	25	**100**
Item:	Qty.	
Snake Head Cutouts	25	100
Popcorn	6	24 oz.
Rattlesnake Tail Vials	25	100
Black Chenille Stems	25	100
Brown Chenille Stems	25	100
Beige Chenille Stems	25	100
Red Ribbon	8 ft.	32 ft.
Instructor Manual	1	1
Snake Head Cutouts	25	100

This page includes the Next Generation Science Standards (NGSS) mapping for this kit and Science, Technology, Engineering, and Math (STEM) extensions (on back) to use in adapting and extending this activity to other subject areas.

Next Generation Science Standards Alignment

1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are alike, but not exactly like, their parents.

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

MS-LS1-4. Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristics animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

See Back for STEM Extensions

This Nature Watch Activity Kit contains an Instructor Manual and materials to implement the curriculum. The kit was designed to be used with adult supervision only. Unsupervised use is not recommended.

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STEM Extension

Science

Draw and cut out pictures of the snake species described in the kit. Tape them to a large world map in the geographic regions where they live. Then draw pictures of the snakes' habitats as described in the kit (i.e., swampy areas, scrub oak-longleaf pine forests) and add them to the map.

Choose one of the snakes described in the kit and create a mini-habitat for it inside a fishbowl or other small, glass container. Use items from outside or get creative with craft materials to make its habitat look realistic.

Go online to learn about the different ways snakes can move: the serpentine method (lateral undulation), the concertina method, the rectilinear method, and sidewinding. Simulate these types of movement by slithering on the ground yourself or using a prop that looks like a snake.

Technology

Listen to the sounds of a rattlesnake's rattle by watching some videos online. Then, recreate the sound by shaking the tail of the rattlesnake that you made and recording it with sound recording software. Use the software to change the tone and speed of the sound and shake your rattlesnake's rattle in different ways to make a sound that is as close as possible to a real rattle.

Explore the rattlesnakes' ranges by looking at Google Maps or Google Earth. What major landmarks, national parks, and other famous places are located in the ranges where the snakes live? It may be helpful to go online to find a range map for each snake, or you can just follow the ranges described in the activity kit.

Engineering

Rattlesnakes' rattles are communication tools to alert other animals of their presence. Think of situations when people or other animals could use an alert system like this (e.g., to notify others when they are coming around a corner, for cows in place of cow bells, etc.). Design a system that mimics a rattlesnake's rattle to communicate to others.

Snake handlers use special tools to catch and handle snakes. Go online to see some examples such as hooks, tongs, and snake leggings. Present an information session to your classmates that describes why these tools are designed the way they are and instructs them on how to use them safely.

Math

Find objects in your classroom or at home that are similar in length to the snakes described in the activity kit. Line up the objects side by side and have your classmates estimate the length of each one just by looking at it, then guess to which snake it is similar in length.

Practice making patterns with what you've learned about rattlesnake coloration in the activity kit. First, color an entire piece of paper to look like one of the snake's coloring (i.e., dull gray with dark gray blotches for the pygmy rattlesnake). Do the same for each of the other snakes. Then, cut the papers into 2" x 2" squares. Make a mixed-up snake by gluing the squares together in a pattern of your choosing. If you need ideas, try a pattern of A-A-B-C-D-A-A-A-B-C-D-A-A-A-A-B-C-D, where each letter represents one of the snakes.