



**ECHOES OF
NATURE**

PO Box 633
Bowie, MD

(301) 860-1306
www.EchoesOfNature.org

Virtual Field Trips & In-Person

2020-2021 Outreach Programs

We have presentations that align with the Next Generation Science Standards (NGSS), the State Curriculum and Environmental Literacy standards. STEM based Lab style classes features a more hands on program. The instructor introduces your class to natural science topics through the use of live animals, high interest demonstrations, and biofacts. Echoes Of Nature is your in house academic field trip. Participation of students is encouraged during each program. Check the website for listing of standards for each program. Programs can be designed for your classes. Many can be adjusted for after school programs.

Animal Sounds and Movement- Pre-K

What animal sounds can you make? Can you move like these animals? Meet some live animals and try out their sounds and movements.

Animal Textures and Colors-Pre-K & K

Discover the amazing world of animal textures and colors. Be an animal detective and meet some live animals to figure out if the animals are rough or smooth. What colors are the animals? Do they have stripes or spots?

As The Wheel Turns- Pre-K & K

Learning about lifecycles in class? Meet with some of our animal ambassadors and learn about their cycles. Help put the lifecycle wheels together for each ambassador.

Ugh! A bug! (or is it Ooh, Cool!)- Pre-K & K

Discover the world of bugs. "Bugs" are everywhere. But what is a bug? Does it have 6 or 8 legs? Or more? Meet some "bugs" and use your detective skills to figure out if it is an insect or an arachnid.

Animals of Maryland- K NGSS: K-ESS3-1

Meet some native live animals that can be found in Maryland. Learn basic differences between animal body coverings. Observe and touch certain animals.

Bay BC's- K NGSS: K-ESS2-2, K-ESS3-3

Explore the rich variety of life that fills our Chesapeake Bay. On our journey learn simple ways to protect the Bay's fragile environment.

Food Chain- Grade K NGSS: K-LS1-1

Meet some living "links" in a food chain. Learn how each "link" depends upon the other surrounding animals and plants. "Build" a food chain and find out what happens if that food chain "breaks".

Earthworm Lab - K Lab Style

NGSS: K-ESS2-2, K-ESS3-3

Be a field researcher. Make hypothesis of how and why an earthworm will react to certain stimuli. Observe earthworms moving and take measurements. What are the benefits of having earthworms in your yard besides a decomposer?

Journey Into Winter- PreK-Grade 1

NGSS 1-LS1-1

Winter is here. Where are the animals? How do they survive the cold, foodless winters? Some migrated. Some are dozing. Some are true hibernators. Meet some animals and find out where they would be during winter.

Growing Up I- Grade 1; Growing Up II-Grade 3

NGSS: 1-LS1-1, 1-LS1-2, 1-LS3-1

NGSS: 3-LS1-1, 3-LS2-1, 3-LS3-1

Follow the life cycle of animals. See how they change during their lives. Compare and contrast the young with the adults. What traits are passed on to the young?

Animal Communication and Sounds- Grade 1 Lab Style

NGSS 1-PS4-1, 1-PS4-4

How do animals talk to each other? Do we know what they are talking about? Hear some animal calls and what scientists believe is being said. Explore different ways animals communicate through sound.

Animal Adaptations- Grades K-1

NGSS: 1-LS1-1

Discover the special adaptations of animals in their survival for life. What is some of the best "equipment" for the job of living on land, air, or water? {Can focus on specific adaptations!}

Animals In The Stars- Grades 1

NGSS: 1-ESS1-1

Bring constellations to life through star stories and animals. Why do we have a history of star stories? How many constellations are there and what are asterisms?

Length of Session: approximately 45 minutes
(Sessions for younger participants can be at 30 minutes. Ask about options.)

Number of Students: 60 maximum except for PreK-K: 45 maximum & Lab Style: 30 maximum

Fee: \$180 for one in-person program
\$125 for live virtual program

Discounts for multiple same day programs

Driving fee for areas beyond 20 mile radius:

\$25.00 or \$35.00 for extended areas

(PG and AA counties are within 20 mile radius)

Got Habitat? - Grades 1&2

NGSS: 1-LS1-1, 2-LS4-1

Maryland has a variety of habitats. Each habitat meets the basic needs of the animals and plants that live there. What are some of the structures/ functions of the animals to survive in a habitat? Meet some of our animal ambassadors and discover their requirements for food, shelter, water, and space.

Pond Life- Grade 2 Lab Style

NGSS: 2-LS4-1

Can't take the class to the pond? Have some of the pond and its inhabitants brought to your class! Meet live macroscopic pond animals. Explore pond water/muck to find and identify interesting pond life.

What's Buggin' You?- Grades 2-3

Bugs, bugs everywhere. They are good for what? Compare, contrast, and diagram insects as well as arachnids. Meet live representatives of these 2 groups.

Life in the Chesapeake Bay Area- Grades 2-3- Lab Style

NGSS: 2-LS4-1, 3-LS4-3

Compare/contrast life in freshwater and saltwater/ brackish water through hands on items (biofacts, models), microscopes, guides, and live animals.

Dinosaurs and Living Fossils- Grades 2&3

NGSS 2-LS2-2, 2-LS4-1, 3-LS4-1, 3-LS4-3, 3-LS4-4

What can fossils tell us about plants and animals, like dinosaurs, from long ago? What caused extinctions? Meet living fossils as we learn more about the past.

[Grades 2-8 continued on Back]



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Habitats of Maryland- Grades 2-4 Lab Style

NGSS: 2-LS2-1, 2-LS2-2, 2-LS4-1, 3-LS3-2, 3-LS4-2, 4-LS1-1, 4-LS1-2

Maryland has a variety of habitats. Each habitat meets the basic needs of the animals and plants that live there. Be habitat detectives and determine which habitat the animal ambassadors belong through clues to their requirements for food, shelter, water, and space. What internal/external structures function to support survival, growth, behavior, and reproduction for the plants/animals in their habitats?

Earthquakes/Plate Tectonics/Tsunamis- Grades 2-4, Grades 6-8 Lab Style

NGSS: 2-ESS1-1, 2-ESS2-1, 2-ESS2-2, 3-ESS2-1, 3-ESS2-2, 3-ESS3-1, 4-LS1-1, 4-ESS1-1, 4-ESS2-2, MS-ESS2-1, MS-ESS2-2, MS-ESS3-2

What are plate tectonics? How do they move? What happens when they move? How can we predict these natural hazards? Have a field trip that brings additional educational fun to your classroom. Your class will make an edible cross section of the Earth. How did early people explain earthquakes and tsunamis? Hear some pourquoi legends/folktales about earthquakes/tsunamis. *Due to time and food being presented, there are no live animals in this program.*

Animals & Their Biome Ecosystems- Grade 3

NGSS: 3-LS4-3, 3-LS4-4

Studying biomes? Add live animals into the mix and help students learn about the biomes, the animals, and how animals are adapted to live in certain places and not others. What happens when environmental changes may occur?

Winter Survivors- Grades 3-4

NGSS 3-LS4-3, 4-LS1-1

What tactics do animals use to survive winter? Explore migration, hibernation, and adaptation techniques. Focus on hazards of winter survival.



Animal Adaptations II- Grade 3-4

NGSS: 3-LS3-2, 3-LS4-2, 4-LS1-1, 4-LS1-2

What *internal and external features* do animals have to survive and thrive? What “equipment” do they need for the job of living on land, air, or water? Which animals have structural or behavioral adaptations? What are the differences of those in captivity versus wild behavior. {*Can focus on specific adaptations!*}



Looking at Vertebrates- Grade 4 Lab Style

NGSS: 4-LS1-1

What is a vertebrate? Let's find out. Explore hands-on biofacts and artifacts that give clues to each group of vertebrates. Find out special characteristics or adaptations that are beneficial for each group. Which is the most diverse group of vertebrates? Meet live representatives.



Skeletons- Grades 4

NGSS: 4-LS1-1

Leg bone connected to the hip bone...All animal skeletons are the same, right? Find out. Compare and contrast our skeleton with different animals. Great for preview or review of class materials.



Web of Life- Grades 5

NGSS: 5-PS3-1, 5-LS1-1, 5-LS2-1

Solve the puzzle to reveal the basic concepts of photosynthesis and food webs. Meet some of the “links” and discover how they fit in the web of life.



Frog Math- Grades 4-7 Lab Style

Great leaping amphibians! How far can a frog jump? Make “frogs” jump and then measure the distances. Get the measure of central tendency for each one. Compare size and distance of frogs versus humans. Meet some live amphibians to help with the lab.



Snakes!- Grades 6-8

NGSS: MS-LS4-2

Meet the misunderstood, but fascinating animal, the snake. Learn about the natural history of snakes with a special look at local venomous and nonvenomous species. Meet some nonvenomous snakes to help with the class. Snakes are ‘living fossils’. What can we learn from modern snakes to help us learn about the past?



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Careers with Animals- Grades 6-8

Lab Style (NGSS MS-LS1-4, MS-LS2-1,

MS-LS2-2, MS-LS2-4, MS-LS2-5,

MS-LS3-1, MS-LS3-2, MS-LS4-1, MS-LS4-2)

Interested in a career that deals with nature, natural history, biology, animals, or science in general? Not sure of some of the routes that you could take? Discover some of the different options available, ask questions, and meet some animal ambassadors.



Microscopic Pond Life- Grades 6-8 Lab Style



We provide the pond life. You provide the microscopes. View and identify microscopic pond life. Hands on experience with microscope, living organisms, and identification. (Some simple microscopes may be available, please inquire.)

Chemistry of Plants & Animals-

Grades 6-8 Lab Style NGSS: MS-PS1-1

Use common plant juices and household chemicals to determine ACID/BASE/ NEUTRAL. Determine the chemical formula of the reactions. See live animal ambassadors and learn about some of their chemical based protections.



Please call or check the website (www.EchoesOfNature.org) for any additional programs that may be available. If a program topic is not listed or not under your grade, please call to see if a program can be designed or modified for your class. The number is (301) 860-1306. Thank you very much.