



POTOMAC VALLEY AUDUBON SOCIETY NATURE MEETS THE CLASSROOM



Potomac Valley Audubon Society's educational programs are 1-hour and theme-specific programs presented in your classroom (except where noted). All programs are created for a specific age group and the content is closely aligned with the West Virginia Content Standards and Objectives for that grade, but some are also adaptable for a variety of age groups. Scouts, church groups, after-school programs, homeschool groups, and others are encouraged to take advantage of the programs, too.

PVAS's programs involve hands-on activities that encourage active learning. No programs use live animals, but are designed to help students learn more about the theme and then use critical thinking skills to apply their new knowledge. All program supplies and materials are supplied, including programs featuring craft projects.

Field Experiences based on many of the themes are offered at these PVAS nature preserves:

- Yankauer Nature Preserve (between Shepherdstown and Martinsburg)
- Cool Spring Preserve (south of Charles Town)
- Stauffer's Marsh (Back Creek Valley Road, Berkeley County)
- Eidolon Nature Preserve (Morgan County)

If you have a specific theme you would like to have in your classroom, contact the PVAS Program Specialist, Ellen Murphy at 304-676-8739 or email Ellen@PotomacAudubon.org.

Pre-K Themes

Pre-K programs, depending on the theme, meet one or more of Early Childhood Learning Standards focused on Social and Emotional Development, Language and Literacy, Mathematics, Science as Inquiry and Scientific Knowledge, and The Arts.

Insect-igations – There are many different insects in the world, but all of them have three body parts and six legs! Through active games and challenges, students learn about and “become” an insect for a little while. (This program includes a comparison of insects and spiders.)

Birds, Birds, Birds – What makes a bird, a bird? Through activities that encourage discovery and experimentation, students learn about bird beaks, feet, and feathers. Also included is discovery of bird eggs and sounds, from the smallest to the largest!

Our Furry Friends (Mammals) – Some animals are mammals, but not all. Some mammals are big and some small. In this program, students have the opportunity to learn about different sizes, sounds, and movement that mammals make.



Frogs and Friends (Amphibians) – Students discover the world of amphibians using activities focused on frogs, toads, and salamanders.

Rockin' Reptiles – Turtles, lizards, and alligators are all reptiles. Students discover their world using hands-on activities, games, and songs.

Nature's ABC's – Using natural objects and emphasizing letters of the alphabet, students explore shapes that can be found in nature. In good weather, students go outside to look for a natural shape of the first letter in their name. The numbers 1-10 are also included.

Spectacular Spiders – Spiders are not insects! Through activities and dressing up, students learn that spiders have 8 legs while insects have 6. Also included is a special spider web craft project.

Red Leaf, Yellow Leaf – Students explore seasonal changes and the many shapes and colors found in nature, especially in leaves. Perfect for fall, this program includes different leaves and leaf rubbings.

A Present for The Birds – Students briefly learn about what birds eat, then make a simple bird feeder to take home and hang. No peanut butter is used.

Animals in Winter: The Mitten – What do animals do when it gets cold? According to Jan Brett's book *The Mitten*, they investigate the unusual! Using stuffed animals and masks, students act out the story and learn about the animals in the book.



Kindergarten Themes

What's Bugging You? (Insects) – Students learn the basics of insect anatomy, practice critical thinking with an insect bingo game, and then “become” an insect through active games. In warm weather, students go outside to look for insects; in cold weather, students learn what happens to insects in winter. This program features a read-aloud insect book appropriate to the season. **S.K.GS.3; M.K.5; ELA.K.4; SS.K.1; ELA.K.4; ELA.K.10**



There's No Place Like Home (Habitats) – Students learn about the four things animals need to survive and make a “habitat chain” as a reminder. The chain, often about 100 links long, remains in the classroom as a counting incentive. **S.K.GS.3 M.K.1, M.K.5, M.K.22; SS.K.1**

Red Leaf, Yellow Leaf -- Students explore seasonal changes and the many shapes and colors found in nature, especially in leaves. Perfect for September and October, this program includes different leaves and leaf rubbings. When available, a StoryWalk® is set up in the school yard for students to enjoy during the day. **SS.K.1; ELA.K.4; ELA.K.10**

A Present for The Birds – Students briefly learn about what different birds eat, then make a bird feeder to take home. No peanut butter is used. **S.K.GS.3; S.K.GS.4; S.K-2.ETS.2; SS.K.1**

Winter Weather – Students learn about temperature and the changes that take place as winter approaches. Included is the chance for students to make “snow.” This program features a read-aloud book appropriate to the season. **SS.K.1; SS.K.11; ELA.K.32**

The Odd Egg – Students learn how birds use camouflage to help protect their eggs, but discover that other animals lay eggs, too. Hands-on activities include an examination of eggs painted to resemble wild bird eggs, sensory activities and guessing games to examine eggs laid by animals

other than birds, and the opportunity to try building a simple bird's nest. **S.K.GS.5; S.K-2.ETS.2; SS.K.1; ELA.K.4; ELA.K.10**



Wetland Discovery -- Students will learn ways that wetland habitats provide animals with abundant places to live and reproduce in preparation for a visit to a wetland. This program is designed to introduce the field trip to Stauffer's Marsh or Cool Spring Preserve. **S.K.GS.3; S.K.GS.5; SS.K.1; SS.K.10; ELA.K.4; ELA.K.10**

First Grade Themes

Butterfly...Flutter By – Students learn the characteristics and colors of common butterflies and briefly compare them to moths. Using butterfly shapes, they experiment with camouflage and play a game emphasizing moth behavior. When available, a StoryWalk® is set up in the school yard for students to enjoy during the day. **S.1.GS.5; S.1.GS.6; SS.1.1; ELA.1.4**

Nature's Architects: Winter Homes – Students learn about changes that take place in winter and how animals prepare for cold weather. Then they try building an animal home. This program features a read-aloud book appropriate to the season. **S.1.GS.5; S.1.GS.7; SS.1.1; ELA.1.4**

What's Bugging You? (Insects) – Students learn the basics of insect anatomy, practice critical thinking with an insect bingo game, and then “become” an insect through active games. In warm weather, students go outside to look for insects; in cold weather, students learn what happens to insects in winter. This program features a read-aloud insect book appropriate to the season. **S.1.GS.5; S.1.GS.6; SS.1.1; ELA.1.4**

Scientific Senses -- Students observe the world around them by using their nose—and eyes and ears and fingers—as they explore animal adaptations. (The sense of taste is not included except when students eat lunch!) This program is the most effective when designed as a field experience at Yankauer Nature Preserve or Cool Spring Preserve. **S.1.GS.5; SS.1.1**

Can You Build a Better Nest? -- Students learn how birds construct nests with their beaks and a variety of materials as well as the engineering techniques required. Then they try out engineering skills by building a nest out of natural

materials. **S.1.GS.5; M.1.20; SS.1.1; ELA.1.4**



Wetland Life Cycles – After reviewing the types of animals that live in a wetland, students participate in an interactive book and play a game as preparation for a visit to a wetland. This program is designed to introduce the field trip to Stauffer's Marsh or Cool Spring Preserve. **S.1.GS.5; S.1.GS.6; SS.1.1; ELA.1.4**

Bird Basics: A Present for the Birds -- Through activities that encourage discovery and experimentation, students learn about bird beaks and feet, then examine bird eggs and sounds, from the smallest to the largest! Also included is the opportunity to make a bird feeder to take home. No peanut butter is used, but it's messy! **S.1.GS.5; M.1.15; SS.1.1; ELA.1.4**

Leaf Man – Using scientific observation and hands-on activities, students discover differences in leaf shape, color, and size. Then, using their imagination, they create nature art using leaves. This program is offered only during September and October. **S.1.GS.5; M.1.15; M.1.20; VA.O.1.1.06**



Second Grade Themes

Animals in Winter – Students learn about changes that take place in winter and how animals prepare for cold weather including hibernation, migration and adaptation. Through a series of experiments, students gauge the effectiveness of different types of insulation. **S.2.GS.1; S.2.GS.7; SS.2.15**

Rainbow Crow -- What makes a bird, a bird? Through activities that encourage discovery and experimentation, students learn about bird beaks. Also included is the story of *Rainbow Crow* and a chance for students to measure their wingspan against those of common raptors. **S.2.GS.2; S.2.GS.7; S.K-2.ETS.2; SS.2.15; ELA.2.2**

Plants v. Animals: Alike or Different? – Do plants have feet? Do animals have roots? Students explore the similarities and differences of plants and animals through hands-on activities, demonstrations, and scientific observation. When possible, students go outside to explore their schoolyard. **S.2.GS.1; S.2.GS.7**

Leafing Out – Using scientific observation and hands-on activities, students discover differences in leaf shape, color, and size. Then, using their imagination, they create nature art using leaves. This program is offered only in September and October. **S.2.GS.1; S.K-2.ETS.2; S.2.GS.7; M.2.14; SS.2.17; VA.O.2.2.08; VA.O.2.3.01**



At Home in the Wetlands -- Students will learn the characteristics of a wetland in preparation for a visit. They also participate in the “Our Tree” story drama. This program is designed to introduce the field trip to Stauffer’s Marsh or Cool Spring Preserve. **S.2.GS.7; ELA.2.32**

Nature’s Architects: Build a Better Nest -- Students learn how birds construct nests with their beaks and a variety of materials as well as the engineering techniques required. Then they are challenged to build a nest themselves using a variety of natural materials. **S.2.GS.2; S.2.GS.3; S.K-2.ETS.2;**

My Life as a Tree – After learning the levels of the forest and common native animals that live there, students participate in the “Our Tree” story drama. As a bonus, students have the opportunity to create an art project entitled “Me as a Tree.” The story drama is based on “The Great Kapok Tree” which can be used by the teacher after the program as learning enrichment. **S.K-2.ETS.2; S.2.GS.7; ELA.2.2; ELA.2.32; VA.O.2.2.08; VA.O.2.3.03**



Third Grade Themes



Amazing Animal Adaptations – Students uncover the mystery of animal adaptations and experiment with camouflage before learning more about several common animals that are native to West Virginia. A highlight of this program is the chance to examine animal skins up close and personal! **S.3.GS.5; S.3.GS.7; S.3.GS.8; S.3.GS.10; S.3.GS.11**

Green Clean – Through a series of chemical experiments using non-toxic ingredients, students learn about and create two basic cleaning products that are not harmful to people, pets, or the environment. A fun bonus includes making homemade lip gloss. **M.3.17**

Bird Beak Basics – Using hands-on activities, students learn that bird beaks are adapted to help birds survive in an environment they share with other species of birds. **S.3.GS.5; S.3.GS.7; S.3.GS.10; S.3.GS.11; S.3. GS.12; M.3.18; ELA.3.2**



Slash the Trash! – Through an investigative game, students identify, evaluate, and categorize lunch trash as recyclable, compostable, or disposable and develop ways that they can help their family, classroom, or entire school reduce the amount of waste they throw away. **SS.3.6**

These themes are currently under development. If you are interested, please contact us for their status:

Rock On! -- Using a series of investigations and games, students learn about the rock cycle and practice “mining” for coal. **SS.3.19**

Nature’s Architects -- Students learn about the building capabilities and techniques used by different animals. **S.3.GS.5; S.3.GS.12; S.3-5.ETS.1**

Native American Tales and Games -- Using Native American storytelling and games, students experience a small part of Native American culture. **ELA.3.2**

Patterns in Nature – Can you say Fibonacci? This program explores nature based on the math patterns found by the mathematician. **M.3.9**

Animals in Winter – Students learn about changes that take place in winter and how animals prepare for cold weather, especially bears. Migration and adaptation are mentioned, but this program focuses on the physical need of bears as they prepare for hibernation. **S.3.GS.7; S.3.GS.12; M.3.18**

Fourth Grade Themes

Watershed Education Initiative – (5 sessions and outdoor learning lab) What’s your watershed address?! Through hands-on activities and interactive learning experiences in the classroom AND an engaging outdoor lab experience, students become aware of their impact on their



own watershed and how they can protect it! ***This program’s fee is \$400 because of its length.*** **S.4.GS.12; S.4.GS.13; S.4.GS.14; M.4.22; SS.4.8; ELA.4.11; ELA.4.20; ELA.4.23**

WOW: Wonders of Water – Students learn about the properties of water including density, salinity, and surface tension through a series of hands-on activities. **S.3-5.ETS.1**



What’s A Watershed? – Students review the water cycle, learn about watersheds by experimenting with a watershed model, and locate the Continental Divide on a map. **S.4.GS.13; S.3-5.ETS.3**

What’s for Lunch? (Food Chains and Webs) – Using their knowledge and an interactive game, students learn about metamorphosis, food chains, and food webs. **S.4.GS.9**

Fifth Grade Themes

Tree Detectives – Students learn about tree structure and photosynthesis and how each part of the tree is specialized to help the tree survive, grow, and reproduce. **S.5.GS.6; ELA.5.20**

Trees Are the Key -- Using real leaves, students discover that trees are classified by scientists in a specific way and that their leaf characteristics allow identification using a dichotomous key. **S.5.GS.6; ELA.5.20**

Changing Lands, Changing Times -- Students will review basic watershed concepts (water travels downhill, watersheds are created by divides, several watersheds can drain into river and streams) and discover how the Chesapeake Bay watershed has changed character and appearance since 1600. **SS.5.16**

Talking Trash -- Through an investigative game, students identify, evaluate, and categorize lunch trash as recyclable, compostable, or disposable. Then using a hands-on activity, they examine the impacts of oil spills on wildlife, especially birds. **S.5.GS.10**



Power Up to Power Down! – (4 sessions) Students explore renewable sources of energy through a series of hands-on activities and challenges. Each session focuses on one type of sustainable energy: solar, wind, or kinetic. Students also investigate the amount of energy consumed by average household appliances. ***This program's fee is \$200 because of the length.*** **S.5.GS.10; S.3-5.ETS.1; SS.5.18; SS.5.19; ELA.5.20; ELA.5.20**

What's for Lunch? (Food Chains and Webs) – Using their knowledge and an interactive game, students learn about metamorphosis, food chains, and food webs. **S.5.GS.5; S.5.GS.7**

These themes are currently under development. If you are interested, please contact us for their status:

My Life as a Scientist – Students will learn that nature can be observed, studied, and changes recorded using scientific protocol. This program prepares the class and teacher to carry out phenological observations of the schoolyard and the local area over several months. **S.5.GS.6; S.5.GS.7; S.5.GS.10; SS.5.19; ELA.5.21**

Rock On! -- Using a series of investigations and games, students learn about the rock cycle and practice “mining” for coal. **S.5.GS.7; S.5.GS.10**

My Side of the Mountain – Students will explore the natural world in their schoolyard based on ideas found in the book by Jean Craighead George. This program is a way for the teacher to bring nature into the classroom using cross-curricular themes. **S.5.GS.7; SS.5.18; ELA.5.21**