

# Program Descriptions

**Making Sense of Nature \*\* (Pre-K- K):** Both people and animals use their senses to explore the world. Come learn about our 5 senses and how we use them, and explore how animals use their senses, including some we DON'T have, to survive.

**Wild Things \*\* (Pre-K – adult):** See where the wild things REALLY are! Our naturalist will introduce you to a variety of animals, including insects, amphibians, reptiles, mammals, and birds of prey. Discover how we classify animals, their adaptations, and meet some that live in your own backyard!

**Reptiles & Amphibians\*\* (1<sup>st</sup> – adult):** Dive into the fascinating world of herpetology. Explore the differences and similarities between amphibians and reptiles and see how they have adapted to survive relatively unchanged for millions of years. Meet cold blooded creatures not only from your local area, but from around the world!

**Invertebrates\*\* (2<sup>nd</sup>- 3<sup>rd</sup> Grade):** Approximately 95% of all life on Earth are invertebrates. Let our naturalist teach you how something spineless is anything but wimpy! Learn about the different groups of this amazing creatures and how they are so successful at survival. Meet arthropods, arachnids, and insects! These simple creatures are simply cool!

**Birds of Prey \*\* (2<sup>nd</sup> Grade – adult):** This one's for the birds! Let us introduce you to one of the most majestic group of birds, the raptors. Learn how they are grouped as birds of prey and the differences between the different types of these fearsome predators. Meet several raptors and see firsthand the impressive adaptations they have to survive all over the world.

**Animals in Winter \*\* (2<sup>nd</sup> – adult):** When it's cold outside, animals can't put on a sweater or turn on the heat. How do they survive when the weather outside is frightful? Join a naturalist to see how animals hibernate, migrate, and adapt to the changing weather. Learn how these animals prepare for the coldest months and what tells them it's almost spring. These animals don't have winter worries!

**Web of Life\*\* (2<sup>nd</sup>-5<sup>th</sup> grade):** An ecosystem is made up living and non-living things that are connected to each other. Some of those connections are obvious, while others are amazing. Join us as we create a food web with common organisms from our area. See where all energy starts and how it moves through a food chain. Discuss how different animals are adapted for different food sources and how they process energy differently. Finally, watch as we create a living food web with local animals right before your eyes!

**Pre-Colonial Maryland (3<sup>rd</sup> – 6<sup>th</sup> grade):** Before the colonization of Maryland, the animals and plants of the area still had challenges, interactions, and relationships with each other and the indigenous peoples who lived in the area. Join a naturalist as we discuss how the wildlife existed, what is happening to them now, and how wildlife aided in the growth of Maryland as a region.

**Rocks & Minerals (4<sup>th</sup> – 6<sup>th</sup> grade):** Geography rocks! Join a naturalist for a hands-on exploration of many common (and some not so common) minerals and rocks from around the world. Discuss how these rocks form, how we classify them, and why they are important in ecosystems and for human development.

**Discovery Hike (1<sup>st</sup> grade – adult):** You will never get the same hike twice! Come along with a park naturalist for a nature hike on one of our many trails to identify many local trees, plants, and types of wildlife while connecting with the beauty that is right in your own neighborhood. Please dress appropriately for the weather. Group size is limited to 15 participants per naturalist

**Owl Pellet Lab (3rd grade – 5th grade)** Enjoy the best of both worlds bringing outdoor observations into your student's homes! In this hands-on class, students develop science and technology processing skills by learning to use laboratory equipment and recording observations. Students apply the scientific method to draw data driven conclusions from their virtual field studies. Discover the WHOOO and why behind owl pellets! Students are introduced to the biology and life history of owls while learning how to use dissecting instruments. Students dissect owl pellets and use data to determine the habitat use of owls. Finally, meet some live owls from your local area!

### **Next Generation Science Standards Programs**

The following interactive programs are aligned with NGSS for various grades and are based on availability.

Programs can accommodate up to 30 students and last about 45 minutes. \$3 (R); \$4 (NR) per student.

**Nature Walk (Kindergarten - K-LS1-1):** Join a naturalist for a walk-through nature. Amateur scientists will discuss methods for collecting and observing data. Students will draw pictures of local plants and animals they spot and will come together at the end to tally our data, introducing young learners to analyzing data. Your first steps as a nature scientist start here! Group size is limited to 15 students per naturalist.

**The Best Beak (1st grade - 1-LS1-1):** Why are bird beaks so unique? Become scientists to discover not only how different bird beaks work, but what beaks work best in different environments. Students will create a new bird with its own unique beak and hypothesize what food it would work best for. Our budding ornithologists will then test their new creations and record their results. Who will be the best bird beak builder?

**Seed Speed (2nd grade - 2-LS2-2):** Seeds may not have legs, but that doesn't mean that they can't move! Seeds have a variety of different forms that help them float, glide, and stick their way to new lands. Participants will look at different groups of seeds and try to identify how they spread. Our beginner botanists will then chart their data to better understand repeatability in science. Help us watch new scientists grow!

**A Polar Bear in the Desert? (3rd grade - 3-LS4-3):** Can a polar bear survive in the desert? Different animals have adaptations to help them survive where they live, but those same traits may be disadvantages somewhere else. Budding zoologists will learn about many of the traits that help an animal to survive in different climates. Then, building on what they learned, they will create an animal that can survive in a certain habitat. Does your animal have the right stuff?

**Erosion Race (4th grade - 4-ESS2-1):** Landscapes are made over time through the efforts of wind and rain. We will do it in a matter of minutes! Students will be able to see the effects of erosion on their own

mini landscape. Then, it's a battle of the forces as groups will create barriers to combat erosion and test them against other group's weather patterns. Can your group reduce the most runoff?

**Follow that Food! (5th grade - 5-PS3-1):** Energy for most food chains on Earth starts as energy from the sun. Join a naturalist as we model energy movement through a food chain and discuss where energy is lost. Students will create their own food chain and calculate percentages of lost energy. How many animals could live in your ecosystem?

### **NGSS Extended Programs**

The following hands-on programs are aligned with Next Generation Science Standards for various grades and are based on availability. Programs can accommodate up to 30 students and last about 2 hours.

\$6 (R); \$8 (NR) per student.

**Owl Pellet Lab (3rd-5th grade - 4-LS1-1; 5-LS2-1):** Enjoy the best of both worlds bringing outdoor observations into the lab classroom. In this hands-on class, students develop science and technology processing skills by learning to use laboratory equipment and recording observations. Students apply the Scientific Method to draw data-driven conclusions from their outdoor field studies. Discover the WHOOO and why behind owl pellets! Students are introduced to the biology and life history of owls while learning how to use dissecting instruments in the laboratory. Students dissect owl pellets in the lab and use data to determine the habitat use of owls.

**Wonderful Wetlands (4th-7th grade - 5-ESS3-1; MS-ESS3-3):** Join us as we learn about one of the most important ecosystems on our planet! Come see how important wetlands are to the health of our local ecosystems and how wetlands act as natural filter. See an example of how a wetland works on a small scale and sample the water in our local wetland to see if it healthy. Engage in a wetland cleanup to ensure it stays that way. Finally, meet some of the wonderful animals that call wetlands their home. Dress for the weather and expect to get dirty!

**The Almighty Oyster (5th-8th grade - 5-ESS3-1; MS-LS2-2):** Come learn about one of our area's most underappreciated animals! Students will learn about the Chesapeake Bay as an estuary and will learn what characteristics of estuaries make them productive ecosystems and good oyster habitat. Students will determine the salinity of three water samples and determine which one is the best habitat for an oyster. Students will participate in a hands-on demonstration that allows them to understand the concept of a salt wedge estuary and why it is vital oyster territory. Finally, students will learn the importance of the oyster in terms of human consumption, animal habitat, and health of the Chesapeake Bay. Students will dissect an oyster to find out how its anatomy contributes to the health of the Bay. Students will work together in teams in the dissection process. 3 weeks advance notice needed.