



Nature, STEM & Adventure Custom Programs

Our trained naturalists offer environmental education and outdoor adventure programs for groups of all ages. Programs are designed for everyone and every occasion.

Be sure to ask about grade specific programs that meet scholastic SOLS. We are happy to customize any program to meet your group needs.

Fees:

\$60/hour at your city location or city parks

\$50/hour at the Nature Zone

\$85/hour outside city limits

To request a program with the Nature Zone fill out our online form or give us a call.

Contact the Nature Zone:

Phone: (434) 455-5828

Email: NatureOutdoors@lynchburgva.gov

Address: 301 Grove St, Lynchburg, VA, 24501

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Preschool- Kindergarten

Nature / STEM Programs

(Unless otherwise noted, these programs can be offered at any location.)

- **Animal Adaptations**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Toads and turtles and snakes, oh my! We have a variety of educational animals that reside at the Nature Zone that students can get hands on experience with. Choose from a range of discussion topics such as Virginia wildlife, reptiles & amphibians, or our general animal programs. We'll take each animal out and talk about their basic needs, life cycles and living vs non-living things.

- **Incredible Insects**

- Length: 1 hour
- When: Year-round
- Max. Students: 25
- There are more insects in the world than any other animals! Find out what characteristics make an insect, why they are so important, learn about their life cycles, and take a look at some of our pinned insects in our collection. We'll also take a closer look at our amazing Nature Zone Madagascar Hissing Cockroaches! This program pairs well with "The Living Tree" or "Where the Wild Things Are".

- **Bird Beak Adaptations**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Drilling, sipping, cracking, and tearing, bird beaks can do it all on the hunt for food. Join us for our "Bird Beak Buffet" where students will travel station to station testing out the right tool for the job! Students will also get an up close look at our taxidermy birds of Virginia.

- **The Living Tree**
 - Length: 1 hour
 - When: Year round
 - Max. Students: 20
 - Trees provide food, a home and much more for so many living and non-living things. Through movement and sensory activities students will follow the life of a tree from seedling to snag. Activities include indoor and outdoor hands-on learning experiences with our Naturalist. This program pairs well with “Incredible Insects” or “Where the Wild Things Are”.

- **Hibernate, Migrate, Adapt**
 - Length: 1 hour
 - When: October-March
 - Max. Students : 20
 - As colder months are approaching let’s talk about how we prepare for winter and what our local wildlife is also doing to get ready for winter. We’ll discuss how different animals adapt to the colder months by hibernating, migrating, and building up their food supplies or fat reserves. You’ll even get an up close look at a few of our live animals to see how they would survive in the wild. This program pairs well with “Incredible Insects” or “Where the Wild Things Are”.

- **Where the Wild Things Are**
 - When: Year round
 - Length: 1 hour
 - Max. Students: 20
 - Wildlife isn’t just the lions and elephants of the safari. Students will create habitats and figure out what animals live where. Then students will work together, using their senses, to discover interrelationships of animals in different habitats. Finally, students will come together to share and categorize their findings. This program pairs well with “Incredible Insects” or “The Living Tree”.

Adventure Programs

- **Importance of Pollinators**
 - Length: 1 hour
 - When: April-October
 - Max. Students: 20
 - Pollinators come in all shapes, sizes, and colors! Join our Naturalist at one of Lynchburg’s parks to set out on a pollinator walk. We’ll visit pollinator gardens and discover the importance of pollinator insects, how to identify them, and what makes them so great!

- **Maple Sugaring**
 - Length: 1.5 hours
 - When: January-February
 - Max. Students: 40
 - Come out to Miller Park to discover this winter tradition. We'll identify which trees should be tapped, demonstrate how to tap a tree, and participants will learn the history and process of maple sugaring. Contact our staff about how to customize this program to your location.

- **Gone Fishing**
 - Length: 1 hour
 - When: April – October
 - Max. Students: 24
 - Grab a rod and let's go fishing! Join our naturalist at Ivy Creek Park, Hollins Mill Park, Peaks View Park for a day in the sun fishing. Participants will learn how to tie fishing knots, gear and tackle, fish species, and how to catch fish. Participants will also build patience, imagination and develop a lifelong outdoor sport. Participants will also learn where and why to buy a fishing license. All equipment provided.

- **Nature Photography**
 - Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Get blown away by the beautiful landscapes and wildlife around us. Learn tips and tricks on how to capture the perfect mountain side landscape or a resting monarch butterfly on most any camera from a professional photographer in this beginner photography program. Participants must bring their own camera and memory card.

- **Forest Succession**
 - When: Sept-Oct, April-May
 - Length: 1 hour
 - Max. Students: 25
 - It's a race to the top! Will it be maple, oak or sycamore? Find out who will win in forest succession. This program introduces participants to biotic and abiotic factors as they walk the trails discovering changes that occur in a forest over time. Contact our staff about how to customize this program to your location.

1st- 2nd Grades

Nature / STEM Programs

(Unless otherwise noted, these programs can be offered at any location.)

- **Animal Adaptations**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Toads and turtles and snakes, oh my! We have a variety of educational animals that reside at the Nature Zone that students can get hands on experience with. Choose from a range of discussion topics such as Virginia wildlife, reptiles & amphibians, or our general animal programs. We'll take each animal out and talk about their habitats, diets, life cycles and adaptations.

- **Backyard Bass**

- When: Year round
- Length: 1 hour
- Max Students: 20
- Get hooked on fishing with Backyard Bass. This safe and easy fishing activity ditches messy hooks for plastic fish. Participants will go fishing for answers about what lies within the Virginia watersheds and gain skills in a lifetime sport. Participants will learn the basics of how to cast, fish identification and have fun. This program can be adjusted to meet the needs of any location indoors or outdoors.

- **Where the Wild Things Are**

- When: Year round
- Length: 1 hour
- Max. Students: 20
- Wildlife isn't just the lions and elephants of the safari. Students will create habitats and figure out what animals live where. Then students will work together, using their senses, to discover interrelationships of animals in different habitats. This program pairs well with "Incredible Insects" or "Food Web and Food Chain".

- **Hibernate, Migrate, Adapt**

- Length: 1 hour
- When: October-February
- Max. Students : 20
- As colder months are approaching let's talk about how we prepare for winter and what our local wildlife is also doing to get ready for winter. We'll discuss how different animals adapt to the colder months by hibernating, migrating, and building up their food supplies or fat reserves. You'll even get an up close look at a few of our live animals to see how they would survive in the wild. This program pairs well with "Incredible Insects" or "Food Web and Food Chain".

- **Bird Beak Adaptations**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Drilling, sipping, cracking, and tearing, bird beaks can do it all on the hunt for food. Join us for our "Bird Beak Buffet" where students will travel station to station testing out the right tool for the job! Students will also get an up close look at our taxidermy birds of Virginia.

- **Food Web & Food Chain**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Who eats who in the animal world? Students will learn about how plants and animals are interdependent with their living and nonliving surroundings and learn various examples of food chains in our area. Plus students will interact with our live animal ambassadors to see the food chain in real life. Student will then work together to create their very own food web. This program pairs well with "Incredible Insects", "Animal CSI" or "Where the Wild Things Are".

- **The Living Tree**

- Length: 1 hour
- When: Year round
- Max. Students: 20
- Trees provide food, a home and much more for so many living and non-living things. Through movement and sensory activities students will follow the life a tree from seedling to snag. Activities include indoor and outdoor hands-on learning experiences with our Naturalist. This program pairs well with "Incredible Insects" or "Where the Wild Things Are".

- **Tree ID**
 - Length: 1 Hour
 - When: April-September
 - Max. Students: 20
 - Join us on a nature walk or in the classroom to learn how to identify trees in our area. Participants will learn tree identification, leaf parts, deciduous vs coniferous, and much more about trees in Central Virginia. This program pairs well with “Incredible Insects” or “Animal Adaptations”.

- **Incredible Insects**
 - Length: 1 hour
 - When: April-September
 - Max. Students: 25
 - There are more insects in the world than any other animals! Find out what characteristics make an insect, why they are so important, learn about their life cycles, and take a look at some of our pinned insects in our collection. We’ll also take a closer look at our amazing Nature Zone Madagascar Hissing Cockroaches! This program pairs well with “The Living Tree” or “Where the Wild Things Are”.

- **Animal CSI**
 - When: Year round
 - Length: 1 hour
 - Max Students: 20
 - Solve the mystery of who lives in your neighborhood. Students will discover how to track animals that live in Virginia by learning about animal tracks and scat. Then students will venture outside to observe what lives around their own school yard and record their findings in an observation journal. This program pairs well with “Food Web and Food Chain” or “Animal Adaptations”.

Adventure Programs

- **Importance of Pollinators**
 - Length: 1 hour
 - When: April-October
 - Max. Students: 20
 - Pollinators come in all shapes, sizes, and colors! Join our Naturalist at one of Lynchburg’s parks to set out on a pollinator walk. We’ll visit pollinator gardens and discover the importance of pollinator insects, how to identify them, and what makes them so great!

- **Maple Sugaring**
 - Length: 1.5 hours
 - When: January-February
 - Max. Students: 40
 - Come out to Miller Park to discover this winter tradition. We'll identify which trees should be tapped, demonstrate how to tap a tree, and participants will learn the history and process of maple sugaring. Contact our staff about how to customize this program to your location.

- **Gone Fishing**
 - Length: 1 hour
 - When: April – October
 - Max. Students: 24
 - Grab a rod and let's go fishing! Join our naturalist at Ivy Creek Park, Hollins Mill Park, Peaks View Park for a day in the sun fishing. Participants will learn how to tie fishing knots, gear and tackle, fish species, and how to catch fish. Participants will also build patience, imagination and develop a lifelong outdoor sport. Participants will also learn where and why to buy a fishing license. All equipment provided.

- **Nature Photography**
 - Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Get blown away by the beautiful landscapes and wildlife around us. Learn tips and tricks on how to capture the perfect mountain side landscape or a resting monarch butterfly on most any camera from a professional photographer in this beginner photography program. Participants must bring their own camera and memory card.

- **Survival Guide**
 - When: April-September
 - Length: 1 hour
 - Max. Students: 20
 - Could you survive the night in the wilderness? Learn the basics survival skills needed to make it out alive. Participants will get hands on experiences building primitive shelters, fire building (without a fire) and basic leave no trace concepts. This program is offered to 2nd grade and above.

- **Creek Critters**
 - Length: 1 hour
 - When: April-September
 - Max. Students: 20
 - Join our Naturalist at Peaks View Park to get hands on experience with the creek critters living in Cheese Creek. We will collect and study macroinvertebrates and run several water quality tests. We'll also discover what can help and hurt our local watersheds. This program pairs well with "Food Web and Food Chain" or "Gone Fishing"

- **Canoe Adventures**
 - When: May-September
 - Length: 1-2 hour
 - Max. Students: 16
 - Explore watershed ecosystems up close and personal. Participants will learn proper canoe strokes and maneuvers as well as what biotic and abiotic factors in a water system. This program is offered to 2nd grade and above. Location: Ivy Creek Park, Hollins Mill Park.

- **Birding 101**
 - When: April - June
 - Length: 1 hour
 - Max. Students: 15
 - Build a better understanding of birds and migration. Search the sky and trees for birds while hiking the trails with a naturalist. Participants will learn about bird identification, bird habits and how to use binoculars. Materials will be provided.

3-4 Grades

Nature / STEM Programs

(Unless otherwise noted, these programs can be offered at any location.)

- **Owls**
 - Length: 1 hour

- When: Year-round
 - Max. Students: 20
 - Students will receive an interactive experience dissecting owl pellets and discussing the food web around owls. Students will receive an up close view of Virginia owls and learn about their physical adaptations and how to identify owls by sight and sound. This program pairs well with “Bird Beak Adaptations” or “Animal CSI”.
- **Hibernate, Migrate, Adapt**
 - Length: 1 hour
 - When: October-March
 - Max. Students : 20
 - As colder months are approaching let’s talk about how we prepare for winter and what our local wildlife is also doing to get ready for winter. We’ll discuss how different animals adapt to the colder months by hibernating, migrating, and building up their food supplies or fat reserves. You’ll even get an up close look at a few of our live animals to see how they would survive in the wild. This program pairs well with “Food Web and Food Chain” or “Animal Adaptations”.
- **Animal CSI**
 - Length: 1 hour
 - When: Year round
 - Max Students: 20
 - Solve the mystery of who lives in your neighborhood. Students will discover what animals live in this Virginia region by tracks and scat of and then venture outside to observe what lives around their own school yard. This program pairs well with “Owls” and “Animal Adaptations”.
- **Food Web & Food Chain**
 - Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Who eats who in the animal world? Students will learn about producers, consumers and decomposers and learn various examples of food chains to better understand the relationships that exist among organisms in an ecosystem. Plus students will interact with our live animal ambassadors to see the food chain

in real life. Student will then work together to create their very own food web. This program pairs well with “Tree ID” or “Animal Adaptations”

- **Bird Beak Adaptations**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Drilling, sipping, cracking, and tearing, bird beaks can do it all on the hunt for food. Join us for our “Bird Beak Buffet” where students will travel station to station testing out the right tool for the job! Students will also get an up close look at our taxidermy birds of Virginia. This program pairs well with “Birding 101” or “Animal Adaptations”

- **Tree ID**

- Length: 1 hour
- When: April-September
- Max. Students: 20
- Join us on a nature walk or in the classroom to learn how to identify trees in our area. Students will learn how about the ecosystems with in trees, photosynthesis, and the importance of trees as a natural resource in Virginia. This program pairs well with “Incredible Insects” or “Animal Adaptations”.

- **Incredible Insects**

- Length: 1 hour
- When: April-September
- Max. Students: 25
- There are more insects in the world than any other animals! Find out what characteristics make an insect, why they are so important, learn about their life cycles, and take a look at some of our pinned insects in our collection. We’ll also take a closer look at our amazing Nature Zone Madagascar Hissing Cockroaches!

- **Animal Adaptations**

- Length: 1 hour
- When: Year-round
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amphibians, or our general animal programs. We'll take each animal out and talk about their habitats, diets, life cycles and adaptations.

- **Backyard Bass**

- Length: 1 hour
- When: Year round
- Max Students: 20
- Get hooked on fishing with Backyard Bass. This safe and easy fishing activity ditches messy hooks for plastic fish. Participants will go fishing for answers about what lies within the Virginia watersheds and gain skills in a lifetime sport. Participants will learn the basics of how to cast, fish identification and have fun. This program can be adjusted to meet the needs of any location indoors or outdoors.

Adventure Programs

- **Importance of Pollinators**

- Length: 1 hour
- When: April-October
- Max. Students: 20
- Pollinators come in all shapes, sizes, and colors! Join our Naturalist at one of Lynchburg's parks to set out on a pollinator walk. We'll visit pollinator gardens and discover the importance of pollinator insects, how to identify them, and what makes them so great!

- **Maple Sugaring**

- Length: 1.5 hours
- When: January-February
- Max. Students: 40
- Come out to Miller Park to discover this winter tradition. We'll identify which trees should be tapped, demonstrate how to tap a tree, and participants will learn the history and process of maple sugaring. Contact our staff about how to customize this program to your location.

- **Gone Fishing**

- Length: 1 hour
- When: April – October
- Max. Students: 24
- Grab a rod and let's go fishing! Join our naturalist at Ivy Creek Park, Hollins Mill Park, or Peaks View Park for a day in the sun fishing. Students will learn how to tie fishing knots, gear and tackle, fish species, and how to catch fish. Students will also build patience, imagination and develop a lifelong outdoor sport.

Students will also learn where and why to buy a fishing license. All equipment provided. Naturalist will demonstrate how to fillet and cook a fish over a fire. This program pairs well with “Canoe Adventures” or “Survival Guide”.

- **Nature Photography**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Get blown away by the beautiful landscapes and wildlife around us. Learn tips and tricks on how to capture the perfect mountain side landscape or a resting monarch butterfly on most any camera from a professional photographer in this beginner photography program. Participants must bring their own camera and memory card.

- **Archery**

- Length: 1 hour
- When: Year-round
- Max. Students: 12, 13-15 students 2 hours
- Students will learn about recurve and compound bows, proper handling and shooting techniques, range safety, as well as practice time. Location: Armstrong Gym, Fairview Center, Ivy Creek Park.

- **Canoe Adventures**

- Length: 1-2 hour
- When: May-September
- Max. Students: 16
- Explore watershed ecosystems up close and personal. Students will learn proper canoe strokes and maneuvers as well as what biotic and abiotic factors in a water system. Location: Ivy Creek Park, Hollins Mill Park.

- **Survival Guide**

- Length: 1 hour
- When: April-September
- Max. Students: 20
- Could you survive the night in the wilderness? Learn the basics survival skills needed to make it out alive. Participants will get hands on experiences building primitive shelters; fire building (without a fire) and basic leave no trace concepts. Make it a field trip and pair it with “Canoe Adventures” or “Orienteering”.

- **Birding 101**
 - Length: 1 hour
 - When: April - June
 - Max. Students: 15
 - Build a better understanding of birds and migration. Search the sky and trees for birds while hiking the trails with a naturalist. Participants will learn about bird identification, bird habits and how to use binoculars. Materials will be provided.

- **Forest Succession**
 - Length: 1 hour
 - When: Sept-Oct, April-May
 - Max. Students: 25
 - It's a race to the top! Will it be maple, oak or sycamore? Find out who will win in forest succession. This program introduces participants to biotic and abiotic factors as they walk the trails discovering changes that occur in a forest over time. Contact our staff about how to customize this program to your location.

- **Creek Critters**
 - Length: 1 hour
 - When: April-September
 - Max. Students: 20
 - Join our Naturalist at Peaks View Park to get hands on experience with the creek critters living in Cheese Creek. We will collect and study macro invertebrates and run several water quality tests. We'll also discover what can help and hurt our local watersheds.

- **Orienteering**
 - When: Year round
 - Length: 1 hour
 - Max Students: 25
 - Navigate the basics of orienteering in this beginner's course. Students will learn how to use a magnetic compass and topographical maps and then set out on a beginner orienteering course.

5th – 6th Grades

Nature / STEM Programs

(Unless otherwise noted, these programs can be offered at any location.)

- **No Water Off a Duck's Back**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- The impacts of environmental pollution are often difficult to see! Oil spills provide dramatic evidence of potential harm to wildlife. Dip into the issues ducks encounter when oil spills occur in their habitats. Students will investigate ways oil spills can adversely affect birds and describe possible negative consequences to wildlife, people and the environment from pollutants by humans. This program pairs well with "Food Web and Food Chain" or "Creek Critters"

- **Bird Beak Adaptations**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Drilling, sipping, cracking, and tearing, bird beaks can do it all on the hunt for food. Join us for our "Bird Beak Buffet" where students will travel station to station testing out the right tool for the job! Students will also get an up close look at our taxidermy birds of Virginia. This program pairs well with "Birding 101" or "Animal Adaptations"

- **Water Works**

- When: Year round
- Length: Part I - 1 hour, Part II – 2hours
- Max Students: 20
- Part I: Water makes the world go round. From the water cycle to erosion students will explore how Virginia is made of several different watersheds and the affects pollutants can have on it using an EnviroScape. Students will discover the important role water plays in our daily lives, life on earth, earth systems and how it is all connected. Students will write their observations in a science journal passed out by Naturalist staff.
- Part II (optional): Students will take a field trip to the Blackwater Creek with Naturalist staff. Students will paddle up the Blackwater Creek from Hollins Mill Park boat launch to observe and record the effects of weathering, erosion and deposition on the banks of the creek. All students will be required to wear a PFD and given instructions on basic strokes and maneuvers.

- **Hibernate, Migrate, Adapt**

- Length: 1 hour
- When: October-February
- Max. Students : 20
- As colder months are approaching let's talk about how we prepare for winter and what our local wildlife is also doing to get ready for winter. We'll discuss how different animals adapt to the colder months by hibernating, migrating, and

building up their food supplies or fat reserves. You'll even get an up close look at a few of our live animals to see how they would survive in the wild.

- **Animal CSI**
 - When: Year round
 - Length: 1 hour
 - Max Students: 20
 - Solve the mystery of who lives in your neighborhood. Students will discover what animals live in this Virginia region by tracks and scat of and then venture outside to observe what lives around their own school yard.

- **Food Web & Food Chain**
 - Length: 1 hours
 - When: Year-round
 - Max. Students: 20
 - Who eats who in the animal world? Students will learn about producers, consumers and decomposers and learn various examples of food chains in our area. Plus students will interact with our live animal ambassadors to see the food chain in real life. Student will then work together to create their very own food web.

- **Tree ID**
 - Length: 1 Hour
 - When: April-September
 - Max. Students: 20
 - Join us on a nature walk or in the classroom to learn how to identify trees in our area. Students will learn tree identification, leaf parts, deciduous vs coniferous, and much more about trees in Central Virginia. This program pairs well with “Incredible Insects” or “Animal Adaptations”.

- **Incredible Insects**
 - Length: 1 hour
 - When: April-September
 - Max. Students: 25
 - There are more insects in the world than any other animals! Find out what characteristics make an insect, why they are so important, learn about their life cycles, and take a look at some of our pinned insects in our collection. We'll also

take a closer look at our amazing Nature Zone Madagascar Hissing Cockroaches! This program pairs well with “Animal Adaptations” or “Tree ID”.

- **Animal Adaptations**

- Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Toads and turtles and snakes, oh my! We have a variety of educational animals that reside at the Nature Zone that students can get hands on experience with. Choose from a range of discussion topics such as Virginia wildlife, reptiles & amphibians, or our general animal programs. We'll take each animal out and talk about their habitats, diets, life cycles and adaptations.
- **Owls**
 - Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Students will get hands on experience dissecting owl pellets and discovering what exactly the owls are eating. Students will also learn about our Virginia owls, physical adaptations of owls, and how to identify owls by sight and sound. This program pairs well with “Animal Adaptations” or “Food Web & Food Chain”.

Adventure Programs

- **Creek Critters**

- Length: 1 hour
- When: April-September
- Max. Students: 20
- Join our Naturalist at Peaks View Park or Ivy Creek Park to get hands on experience with the creek critters living in our water ways. We will collect and study macro invertebrates and run several water quality tests. Students will discover how the natural processes, human activities, and biotic and abiotic factors influence the health of a watershed system. This program pairs well with “Canoe Adventures”.

- **Importance of Pollinators**

- Length: 1 hour
- When: April-October
- Max. Students: 20
- Pollinators come in all shapes, sizes, and colors! Join our Naturalist at one of Lynchburg's parks to set out on a pollinator walk. We'll visit pollinator gardens and discover the importance of pollinator insects, how to identify them, and what

makes them so great! This program pairs well with “Food Web and Food Chain” or “Animal CSI”.

- **Maple Sugaring**

- Length: 1.5 hours
- When: January-February
- Max. Students: 40
- Come out to Miller Park to discover this winter tradition. We'll identify which trees should be tapped, demonstrate how to tap a tree, and participants will learn the history and process of maple sugaring. Contact our staff about how to customize this program to your location.

- **Nature Photography**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Get blown away by the beautiful landscapes and wildlife around us. Learn tips and tricks on how to capture the perfect mountain side landscape or a resting monarch butterfly on most any camera from a professional photographer in this beginner photography program. Participants must bring their own camera and memory card.

- **Canoe Adventures**

- When: May-September
- Length: 1-2 hour
- Max. Students: 16
- Explore watershed ecosystems up close and personal. Participants will learn proper canoe strokes and maneuvers as well as what biotic and abiotic factors in a water system. Location: Ivy Creek Park, Hollins Mill Park.

- **Gone Fishing**

- Length: 1 hour
- When: April – October
- Max. Students: 24
- Grab a rod and let's go fishing! Join our naturalist at Ivy Creek Park, Hollins Mill Park, Peaks View Park for a day in the sun fishing. Participants will learn how to tie fishing knots, gear and tackle, fish species, and how to catch fish. Participants will also build patience, imagination and develop a lifelong outdoor sport.

Participants will also learn where and why to buy a fishing license. All equipment provided.

- **Survival Guide**

- When: April-September
- Length: 1 hour
- Max. Students: 20
- Could you survive the night in the wilderness? Learn the basics survival skills needed to make it out alive. Participants will get hands on experiences building primitive shelters, fire building (without a fire) and basic leave no trace concepts.

- **Archery**

- Length: 1 hour
- When: Year-round
- Max. Students: 12
- Participants will learn about recurve and compound bows, proper handling and shooting techniques, range safety, as well as plenty of practice time. Location: Armstrong Gym basketball gym, Fairview Center, Ivy Creek Park.

- **Birding 101**

- When: April - June
- Length: 1 hour
- Max. Students: 15
- Build a better understanding of birds and migration. Search the sky and trees for birds while hiking the trails with a naturalist. Participants will learn about bird identification, bird habits and how to use binoculars. Materials will be provided.

- **Forest Succession**

- When: Sept-Oct, April-May
- Length: 1 hour
- Max. Students: 25
- It's a race to the top! Will it be maple, oak or sycamore? Find out who will win in forest succession. This program introduces participants to biotic and abiotic factors as they walk the trails discovering changes that occur in a forest over time. Contact our staff about how to customize this program to your location.

- **Orienteering**

- When: Year round
- Length: 1 hour
- Max Students: 25
- Navigate the basics of orienteering in this beginner's course. Students will learn how to use a magnetic compass and topographical maps and then set out on a beginner orienteering course.

7-8 Grades

Nature / STEM Programs

(Unless otherwise noted, these programs can be offered at any location.)

- **Water Works**

- When: Year round
 - Length: Part I: 1 hour, Part II: 2 hours
 - Max Students: 25
 - Part I: Water makes the world go round. From the water cycle to erosion students will explore how Virginia is made of several different watersheds and the affects pollutants can have on it using an EnviroScape. Students will discover the important role water plays in our daily lives, life on earth, earth systems and how it is all connected. Students will write their observations in a science journal passed out by Naturalist staff.
 - Part II (optional): Students will take a field trip to the Blackwater Creek with Naturalist staff. Students will paddle up the Blackwater Creek from Hollins Mill Park boat launch to observe and record the effects of weathering, erosion and deposition on the banks of the creek. All students will be required to wear a PFD and given instructions on basic strokes and maneuvers.
- **Owls**
 - Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Students will get hands on experience dissecting owl pellets and discovering what exactly the owls are eating. Students will also learn about our Virginia owls, physical adaptations of owls, and how to identify owls by sight and sound. Pairs well with “Animal Adaptations” or “Food Web & Food Chain”.
- **Food Web & Food Chain**
 - Length: 1 hours
 - When: Year-round
 - Max. Students: 20
 - Who eats who in the animal world? Students will learn about producers, consumers and decomposers and learn various examples of food chains in our area. Plus students will interact with our live animal ambassadors to see the food chain in real life. Student will then work together to create their very own food web.
- **Animal CSI**
 - When: Year round
 - Length: 1 hour
 - Max Students: 20
 - Solve the mystery of who lives in your neighborhood. Students will discover what animals live in this Virginia region by tracks and scat of and then venture outside to observe what lives around their own school yard.

- **Tree ID**
 - Length: 1 Hour
 - When: April-September
 - Max. Students: 20
 - Join us on a nature walk or in the classroom to learn how to identify trees in our area. Participants will learn tree identification, leaf parts, deciduous vs coniferous, and much more about trees in Central Virginia. This program pairs well with “Incredible Insects” or “Animal Adaptations”.

- **Incredible Insects**
 - Length: 1 hour
 - When: April-September
 - Max. Students: 25
 - There are more insects in the world than any other animals! Find out what characteristics make an insect, why they are so important, learn about their life cycles, and take a look at some of our pinned insects in our collection. We’ll also take a closer look at our amazing Nature Zone Madagascar Hissing Cockroaches!

- **Animal Adaptations**
 - Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Toads and turtles and snakes, oh my! We have a variety of educational animals that reside at the Nature Zone that students can get hands on experience with. Choose from a range of discussion topics such as Virginia wildlife, reptiles & amphibians, or our general animal programs. We’ll take each animal out and talk about their habitats, diets, life cycles and adaptations.

Adventure Programs

- **Maple Sugaring**
 - Length: 1.5 hours
 - When: January-February
 - Max. Students: 40
 - Come out to Miller Park to discover this winter tradition. We’ll identify which trees should be tapped, demonstrate how to tap a tree, and participants will learn the

history and process of maple sugaring. Contact our staff about how to customize this program to your location.

- **Canoe Adventures**

- When: May-September
- Length: 1-2 hour
- Max. Students: 16
- Explore watershed ecosystems up close and personal. Participants will learn proper canoe strokes and maneuvers as well as what biotic and abiotic factors in a water system. Location: Ivy Creek Park, Hollins Mill Park.

- **Gone Fishing**

- Length: 1 hour
- When: April – October
- Max. Students: 24
- Grab a rod and let's go fishing! Join our naturalist at Ivy Creek Park, Hollins Mill Park, Peaks View Park for a day in the sun fishing. Participants will learn how to tie fishing knots, gear and tackle, fish species, and how to catch fish. Participants will also build patience, imagination and develop a lifelong outdoor sport. Participants will also learn where and why to buy a fishing license. All equipment provided.

- **Nature Photography**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Get blown away by the beautiful landscapes and wildlife around us. Learn tips and tricks on how to capture the perfect mountain side landscape or a resting monarch butterfly on most any camera from a professional photographer in this beginner photography program. Participants must bring their own camera and memory card.

- **Archery**

- Length: 1 hour
- When: Year-round
- Max. Students: 12
- Participants will learn about recurve and compound bows, proper handling and shooting techniques, range safety, as well as plenty of practice time. Location: Armstrong Gym basketball gym, Fairview Center, Ivy Creek Park. All equipment provided.

- **Survival Guide**
 - When: April-September
 - Length: 1 hour
 - Max. Students: 20
 - Could you survive the night in the wilderness? Learn the basics survival skills needed to make it out alive. Participants will get hands on experiences building primitive shelters, fire building (without a fire) and basic leave no trace concepts.

- **Birding 101**
 - When: April - June
 - Length: 1 hour
 - Max. Students: 15
 - Build a better understanding of birds and migration. Search the sky and trees for birds while hiking the trails with a naturalist. Participants will learn about bird identification, bird habits and how to use binoculars. Materials will be provided.

- **Forest Succession**
 - When: Sept-Oct, April-May
 - Length: 1 hour
 - Max. Students: 25
 - It's a race to the top! Will it be maple, oak or sycamore? Find out who will win in forest succession. This program introduces participants to biotic and abiotic factors as they walk the trails discovering changes that occur in a forest over time. Contact our staff about how to customize this program to your location.

- **Orienteering**
 - When: Year round
 - Length: 1 hour
 - Max Students: 25
 - Navigate the basics of orienteering in this beginner's course. Students will learn how to use a magnetic compass and topographical maps and then set out on a beginner orienteering course.

9th – 12th Grades

Nature / STEM Programs

(Unless otherwise noted, these programs can be offered at any location.)

- **Animal Adaptations**

- Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Toads and turtles and snakes, oh my! We have a variety of educational animals that reside at the Nature Zone that students can get hands on experience with. Choose from a range of discussion topics such as Virginia wildlife, reptiles & amphibians, or our general animal programs. We'll take each animal out and talk about their habitats, diets, life cycles and adaptations.
- **Tree ID**
 - Length: 1 Hour
 - When: April-September
 - Max. Students: 20
 - Join us on a nature walk or in the classroom to learn how to identify trees in our area. Participants will learn tree identification, leaf parts, deciduous vs coniferous, and much more about trees in Central Virginia. This program pairs well with "Incredible Insects" or "Animal Adaptations".
- **Owls**
 - Length: 1 hour
 - When: Year-round
 - Max. Students: 20
 - Students will get hands on experience dissecting owl pellets and discovering what exactly the owls are eating. Students will also learn about our Virginia owls, physical adaptations of owls, and how to identify owls by sight and sound.
- **Water Works**
 - When: Year round
 - Length: Part I: 1 hour, Part II: 2 hours
 - Max Students: 25
 - Part I: Water makes the world go round. From the water cycle to erosion students will explore how Virginia is made of several different watersheds and the affects pollutants can have on it using an EnviroScape. Students will discover the important role water plays in our daily lives, life on earth, earth systems and how

it is all connected. Students will write their observations in a science journal passed out by Naturalist staff.

- Part II (optional): Students will take a field trip to the Blackwater Creek with Naturalist staff. Students will paddle up the Blackwater Creek from Hollins Mill Park boat launch to observe and record the effects of weathering, erosion and deposition on the banks of the creek. All students will be required to wear a PFD and given instructions on basic strokes and maneuvers.

- **Composting**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Find out how to create and maintain a healthy compost pile from a naturalist. Learn about the items you can include in your pile and how to use it to better your soil. Pairs well with “Diggin’ Up the Dirt” and “A Natural Way to Clean”.

- **Diggin’ up the Dirt**

- When: Year round
- Length: 1 hour
- Max Students: 20
- Dig deep into the science of soils. Participants will learn how all biotic forms depend on soils, soil formation and mapping soils through GLOBE protocols. The data collected by students will help scientists describe soils and understand how they function in our region. Information about soils is integrated with data from other GLOBE protocol investigations in order for scientist to gain a better view of Earth as a system.

- **Green-Up, Green-Down**

- When: Sept-Nov, April-May
- Length: 1 hour
- Max Students: 20
- Participants will monitor the seasonal changes on their environment by collecting data on trees, shrubs and grasses. Now more than ever science needs citizen scientist to help collect reliable data and contribute to an international data system that NASA and international scientist use for all types of studies. Using

GLOBE protocols students will collect data on the budburst and growing season of plants.

- **A Natural Way to Clean**

- Length: 1 hour
- When: Year-round
- Max. Students: 20
- Looking for alternative cleaning products that you can make at home? Find out what you need from a naturalist to keep your house clean and safe of all chemicals. All participants will make their own chemical free cleaning product to take home. All materials provided.

- **DIY Bird Houses**

- Length: 1.5 hours
- When: Year-round
- Max. Students: 10
- Is this house right for your birds? We will discuss the different bird houses you can create on your own for your backyard. All participants will build a basic bird house. All materials provided.

Adventure Programs

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Participants will also learn where and why to buy a fishing license. All equipment provided.

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- **Creek Critters**
 - Length: 1 hour
 - When: April-September
 - Max. Students: 20
 - Join our Naturalist at Peaks View Park or Ivy Creek Park to get hands on experience with the macroinvertebrates living in our streams and ponds. We will collect and study macro invertebrates and run several water quality tests. We'll also discover what can help and hurt our local watersheds. Pairs well with "Canoe Adventures" at Ivy Creek Park and "Water Works" at Peaks View Park.

- **Orienteering**
 - When: Year round
 - Length: 1 hour
 - Max Students: 25
 - Navigate the basics of orienteering in this beginner's course. Students will learn how to use a magnetic compass and topographical maps and then set out on a beginner orienteering course. Pairs well with "Survival Guide" or "Canoe Adventures".

