



## AFTER-SCHOOL

# PROGRAM GUIDE

School's out – and guess what? The fun of nature-based lessons begin! Wildlands' after-school programs provide educational activities centered on the land, water and creatures that make up our environment. These engaging sessions allow students to explore their interest in the natural world within the safety of familiar and positive surroundings. With options that focus on STEM, art, biology, literacy and more, the ways to combine learning and care are practically endless!

All of our program offerings are in line with both Common Core State and Next Generation Science standards and aligned with PA Academic Standards. From coming up with curious questions to drawing evidence-based conclusions, these lessons will help you guide your students through exciting scientific investigations. After-school programs meet once a week for six weeks.



## PRESCHOOL & KINDERGARTEN

### Animal Tales

Students are introduced to live animals and various ecosystems through beautifully illustrated storybooks. Each lesson successfully kindles empathy and compassion for wildlife, thus building a sense of environmental awareness while fostering environmental stewardship.

### Woodland Magic

With a focus on environmental exploration, students use elements of the engineering design process to create a micro village. Students learn navigational skills to find a buried treasure. Imagination and open-ended discovery are emphasized.

## GRADES 1-5

### Nature's Story (grades 1-2)

Drawing a connection between literacy and nature, students are introduced to our live animals through storybooks. This approach successfully sparks curiosity and compassion for the natural world, as students gain a memorable understanding of various creatures' needs. Broader scientific topics, ranging from habitats and ecology to anatomy and adaptations, are explored.

### Legends of the Forest

The exploration of nature's mysteries can be magical. Scientific examination coupled with imagination yield a sense of wonder for the natural world. During this program, participants investigate forest ecology, geology, zoology and botany. Participants will also apply their engineering skills to the creation of a magical mini village.



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Grades 1-5 continued from front

## Build a Naturalist

A comprehensive study of birds, amphibians and reptiles, mammals or insects gives students insight into physical and behavioral adaptations, while getting a close-up look at our wildlife. The connection between botany, dendrology and the animal world enhances participants' understanding of the world in which they live.

## Art in Nature

Students' art is enhanced by understanding their natural subject before capturing it. Live educational animals and multimedia projects fuse themes found in both nature and art: symmetry, strategic coloration, composition, balance. Participants will absorb the science of their subject, whether animal, plant or something more ephemeral, before capturing their artistic vision. We'll use basic art principles to translate students' interpretation into multimedia masterpieces, rendering their internal vision into something everyone can see.

## Ecowarriors

The comprehension that a few simple lifestyle adjustments can create a kaleidoscope of positive change drives the ecowarrior. Rachel Carson and local environmentalists like Bob Rodale and Leonard Parker Pool, as individuals, impacted the natural world well beyond their lifetimes. Through hands-on exploration of past and current environmental concerns, participants will learn how the power of the individual can effect positive environmental change no matter a person's age.

## Outdoor Skills (grades 3-5)

Participants learn basic survival skills, including navigation and foraging techniques, administering first aid, building a shelter and signaling for help. An additional focus on recreational skills like hiking, backpacking, snowshoeing and tracking leaves children feeling more empowered and aware of their surroundings.

## The Best of Bugs: Designing Hand Pollinators (grades 3-5)

Insects pollinate many kinds of plants. What if the right insects aren't around to do the work? In this STEM lesson, students become agricultural engineers. They'll apply their knowledge of insects, insect lifecycles, pollination and natural systems as they test a variety of materials, then engineer their own technologies for pollinating plants by hand.

## A Slick Solution: Cleaning an Oil Spill (grades 3-5)

An oil spill can be deadly for fish, plants and other organisms in the river ecosystem. Students learn about a hypothetical spill on the Little Lehigh Creek. Applying their knowledge of ecosystems and food webs, students will test water quality and also the oil-absorbing properties of different materials as they engineer a process for cleaning up an oil spill. This program introduces students to the field of environmental engineering.





## GRADES 6-8

### Shipwrecked on STEM Island

STEM activities are built around the story of your shipwrecked class stranded on a deserted island. Working in groups of two or three, students complete a number of different challenges to help get them back to civilization. The program immerses students in hands-on inquiry and open-ended exploration, with student-driven ideas, designs and investigations. Participants may build a coconut catapult to defend against pirates, design a waterproof container to house a message or create a bridge to avoid crocodiles.

### Solar Oven Science

An efficiently designed solar oven can meet the needs of people without basic services after surviving a natural disaster or can be used to reduce one's carbon footprint. In this alternative and green engineering program, students engage in the engineering design process as they brainstorm, design, create, test and improve their own solar ovens. We'll use critical thinking skills to determine insulating and conducting properties of materials commonly headed to a landfill. The program includes observations of biomimicry, including nature's own time-tested warming strategies. Teams determine design effectiveness in a cooking competition evaluating their ultimate design.

### Engineering in Nature

Biomimicry translates to the imitation of life. This new science empowers people to create nature-inspired solutions to complex human challenges for a healthy planet. Students design and build machines that fly through learning experiences aligned to the Next Generation Science Standards. We will take a close-up look at plants and animals to discover what has inspired, and is still inspiring, great minds to step outside the box and see what no one has seen before.

### A Slick Solution: The Cost of an Oil Spill

There is a cost of lost life from an oil spill; it can be deadly for fish, plants and other organisms both initially and continually. There is also the reality of limited financial resources available to remediate the disaster. That financial constraint is a limiting factor that can determine cleanup effectiveness. Students learn about a hypothetical spill on a local body of water. Applying their knowledge of ecosystems and food webs, students will test water quality and also the oil-absorbing properties of different materials as they engineer a process for cleaning up an oil spill. This program introduces students to the field of environmental engineering. Participants will examine how personal behaviors affect our local water quality.

### Outside Art

Students' art is enhanced by understanding their natural subject before capturing it. Live educational animals and multimedia projects fuse themes found in both nature and art: symmetry, strategic coloration, composition, balance. Students build ephemeral sculptures in the woods, sketch animals, make seed-infused paper, take photographs outdoors and paint with mud, among other things.

### Outdoor Skills

Participants learn basic survival skills, including navigation and foraging techniques, administering first aid, building a shelter and signaling for help. An additional focus on recreational skills like hiking, backpacking, snowshoeing and tracking leaves children feeling more empowered and aware of their surroundings.



*Continued*

**BOB KACHMAR, STAFF MEMBER AT  
SAUCON VALLEY MIDDLE SCHOOL:**

**“WILDLANDS STAFF AND VOLUNTEERS  
WERE PROFESSIONAL AS ALWAYS,  
AND EVERYTHING WENT  
OFF WITHOUT A HITCH!  
THEY WERE ACCOMMODATING  
IN EVERY WAY.”**







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### GRADES 9-12

#### Sea Perch ROV: Building Underwater Robots

Students will build a submersible remotely operated vehicle (ROV) and explore underwater habitats. This fun, challenging, multiday course works with teams of two students to teach circuitry, buoyancy, water quality and career opportunities.

#### Environmental Art

Every material thing that we, as humans, possess can be traced back to our natural environment. Using both nature-made and manufactured materials, participants will be exposed to and then translate their understanding of a subject into a multimedia masterpiece. Focus will be on repurposing items that may otherwise have found their way to the landfill. Topics range from both plant and animal physical and behavioral adaptations to ecological interactions.

6  
SESSIONS AT  
\$75  
PER  
STUDENT.\*

\*Sea Perch pricing:  
6 sessions at  
\$90 per student

## KICKSTARTING CONSERVATION CAREERS

Gain insight, knowledge, and experience related to many aspects of the conservation and environmental education fields with Wildlands Conservancy's Kickstarting Conservation Careers series. Whether a student's interests include land or aquatic habitat remediation, trail planning, wildlife, related technology, or administration, there are numerous jobs that support a healthy environment. This program features interviews with people working in the field, interactive activities, and exposure to local projects, partnerships, and career-related skills. Kickstarting Conservation Careers is available in both in-school and after-school sessions.

Interested in kickstarting your students' conservation careers? Contact Denise Bauer, director of school programs and summer camp, at [dbauer@wildlandspa.org](mailto:dbauer@wildlandspa.org) or 610.965.4397, ext. 131.

JIM NOVAK, TEACHER AT BUILDING 21:

"I THOUGHT THE PROGRAM WAS EXTREMELY ENGAGING AND INTERACTIVE. OFTENTIMES, MANY STUDENTS BECOME DISINTERESTED QUICKLY. ALL OF THE FACILITATORS AND PROGRAM DESIGN KEPT THE LARGE MAJORITY OF OUR STUDENTS ENGAGED. ALL OF THE ACTIVITIES THAT WERE DONE WITH THE STUDENTS HELPED CREATE AN EXPERIENCE FOR THEM AND PROVIDED FOR US TO MAKE CONNECTIONS LATER IN THE CLASSROOM."



Contact [dbauer@wildlandspa.org](mailto:dbauer@wildlandspa.org) | 610.965.4397, ext. 131



Wildlands Conservancy

3701 Orchid Place, Emmaus, PA 18049-1637 [www.wildlandspa.org](http://www.wildlandspa.org)

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