

Project **WILD**

Let's get **W**ILD,
Maryland!



Project WILD Facilitator Resource Guide

Last Updated: July 2016



Welcome To Project WILD

Project WILD is one of the most widely-used conservation and environmental education programs among educators of students in kindergarten through high school. It is based on the premise that young people and educators have a vital interest in learning about our natural world. A national network of State Wildlife Agency Sponsors ensures that Project WILD is available nationwide --training educators in the many facets of the program. Emphasizing wildlife because of its intrinsic value, Project WILD addresses the need for human beings to develop as responsible citizens of our planet.

Project WILD is a program designed by the Council for Environmental Education. In Maryland, Project WILD is sponsored by the Maryland Department of Natural Resources. This guide is designed to assist you as a facilitator with the Project WILD program.

Larry Hogan, Governor
Mark Belton, DNR Secretary
July 2016
Publication # 03-2222012-554



The facilities and services of the Maryland Department of Natural Resources are available to all without regard to race, color, religion, sex, sexual orientation, age, national origin or physical or mental disability.



This document is available in an alternative format upon request from a qualified individual with a disability.

dnr.maryland.gov

410-260-8566

Toll Free in Maryland: 1-877-620-8DNR, ext.8566



Facilitator Roles and Responsibilities

As a Project WILD facilitator, you are certified to conduct educator workshops for others who are interested in the Project WILD program. During workshops, you should model Project WILD activities and share your extensive knowledge about wildlife and conservation education.

In addition to conducting workshops, facilitators are responsible for maintaining regular communication with their Project WILD State Coordinator to learn of new wildlife "happenings," advise of upcoming workshops, order Project WILD guides and other materials, and submit required program paperwork including completed workshop evaluations. Facilitators are also expected to work with their State Coordinator to advertise and promote their upcoming workshops.

Why Be a Facilitator?

Workshop facilitators are the frontline of our program. Without the time and energy provided by facilitators such as you, Project WILD would not be able to reach so many educators and classrooms in Maryland.

Project WILD Facilitator Roles

The facilitator will:

- Aid participants in developing their own observations, interpretations and conclusions about Project WILD
- Demonstrate how to use Project WILD activities as a tool to connect young children with nature
- Assist educators in finding ways to utilize Project WILD activities in a specific subject area or interdisciplinary manner
- Demonstrate to non-formal educators how to utilize Project WILD activities to enhance or compliment their work with students
- Model effective teaching strategies and encourage educators to explore new ways of teaching
- Use hands-on instructional methods to aid participants in solving any problems they may foresee using new methods with their students

Note: To maintain your facilitator certification, you will be required to conduct or cofacilitate one training with at least 15 people per year.



National and Maryland Contact Hour Requirements for Conducting Project WILD Workshops

The following are contact hour requirements for all Project WILD curriculums. These requirements are set forth by the national Project WILD office and are also conditions that have to be met for the MD Department of Natural Resources to continue offering Project WILD books at no cost to facilitators. The following list includes combination workshop requirements, which are always encouraged. In particular, we strongly recommend combining Project WILD and Aquatic Project WILD in your workshops.

Project WILD Workshops - minimum of 5 contact hours; participants only receive the *K - 12 (Terrestrial) Project WILD* guide.

Aquatic WILD Workshops - minimum of 4 contact hours; participants only receive the *Aquatic Project WILD* guide.

Combined Project WILD Workshops - minimum of 6 contact hours; participants receive both the *K - 12 Project WILD* and *Aquatic Project WILD* guides. This is the preferred workshop format when distributing either of these guides.

Combination Workshops - any combination of Project WILD, Growing Up WILD, Project WET and/or Project Learning Tree requires a minimum of 8 contact hours; participants will receive two guides (ex: Project WET and Project WILD or Project WET and Project Learning Tree).

- Note: If participants will be receiving three different Projects' guides, contact hours should be at least 12.



Workshop Planning Checklist

- Decide what type of workshop you want to conduct i.e. WILD, Aq. WILD, or a combination of several.
- Think about including a possible co-facilitator.
- Decide if you have a target audience or if you are going to have a general workshop
- Contact school systems and other interested agencies to determine there are no major scheduling conflicts (conferences, testing, etc.) that would limit attendance in your area.
- Set date and time; select and secure location. Be sure to give yourself at least 4 - 6 weeks to prepare and advertise your workshop. Project WILD coordinator can help with advertisement.
- Set a maximum number of participants, based on presenter comfort and facility limitations. Minimum should be around 10 to make it worth your while.
- Select activities and draft your agenda. Take into consideration:
 - Time, budget, space, location constraints, etc.
 - Audience.
 - Available supplies and materials.
- Create promotional materials, i.e. flyers, emails, posters & articles; consider advertising via social media outlets
- Determine if fees need to be charged. For example, if you're offering a meal or snack, or if you need to recoup facility rental fees or material costs. Contact the Project WILD Coordinator if you have questions on appropriate fee amounts. You cannot charge a fee for your time or for the books.
- Send in the workshop proposal and tentative agenda to the state Project WILD office at least 4 weeks in advance.
- Distribute promotional materials.
- Set up a registration process. This should include contact information and as much background as you can get, including employer and what age/grade levels they teach. This can also include any special interests and dietary restrictions if you're serving food. You can register participants online using free resources such as Google Forms.
- Gather workshop supplies. Consider reserving an education trunk to showcase at the workshop! If you need something, then ask your state coordinator.
- Order snacks and meals if necessary.
- Send confirmations to registered participants.
- Conduct your workshop and have fun!
- After your workshop is completed, send in the workshop sign in sheet, evaluations, and the Facilitator Reporting Form to the state Project WILD office within two weeks of the completion of your workshop. It is also recommended to follow up with participants after the workshop ends.

Factoring in Your Audience

Project WILD workshops should not be conducted in a one-size fits all manner. To ensure your participants will use the material, it is important to tailor the workshop to your audience. In the registration process before the workshop, try to get a feel for the people who will be attending your workshop. Are they formal or non-formal educators? What grade levels to they primarily teach?

Even if you do not know the specific needs of your audience before you begin planning, try to imagine what the audience would want from the workshop. Furthermore, consider whether there are any local issues or current movements in education or natural resources that the participants might be concerned about or interested in discussing. If you identify possible issues or trends, think about how you could address these during the workshop so that each person has an opportunity to participate.

For a diverse group of educators, select activities that demonstrate the interdisciplinary nature of the materials, their usefulness in many subject areas, and applicability to several grade levels. If you know that your audience has a special interest or age group, select activities to meet their needs. If the workshop focuses on a particular theme, choose activities connected with that theme. If you are working with primarily formal educators, then be sure to show how the different activities connect with state and national learning standards.

Be sure to provide a variety of activities- both indoor and outdoor- which tap into different learning styles from creative to kinesthetic. Include activities that foster individual learning as well as ones associated with group learning. Also, be sure to select activities that YOU are enthusiastic about as your energy level will be passed on to your audience.



Planning the Agenda

After you have considered your audience and have begun selecting activities to present, you are ready to plan the workshop agenda. The following sections will give you some ideas. Workshops should follow these steps to lead the participant from an *awareness* of the project to *knowledge* on the specifics of the program to an opportunity to *learn* about environmental concepts presented in activities and then, finally, to *action* – to use project materials in their teaching. See the Appendix for a sample agenda.

The most important workshop elements to include in an agenda are

- Welcome, agenda overview, and goals
- Getting acquainted/icebreakers
- Project information/history
- Activities experienced by participants
- A Walk on the Wild Side (book review)
- Other resources
- Individual classroom planning
- Workshop wrap-up and evaluation
- Certificates and feedback

Welcome, Agenda Overview, and Workshop Goals

Plan how you will welcome the participants, introduce yourself and other presenters, and give a brief overview of the agenda. Allow 15–20 minutes to do this. Gather supplies for name tags, such as markers, stamps, and stickers.

Getting Acquainted/Icebreakers

Plan how you will have participants introduce themselves. They are coming together for the workshop as learners and, especially if they do not know each other beforehand, creating a friendly and informal atmosphere at the beginning of the workshop can enhance the learning environment. Even if participants know each other, this is an opportunity for you to learn something about them, for their friends to learn something new about them, and for some general learning to begin. An icebreaker can also be used to begin teaching your environmental topic or could include an activity from the project guide. Although icebreakers can go on for 30 minutes, you may want to cut it short to allow time for other activities. Check out the Appendix for sample Icebreaker activities.

Project Information/History

Plan to present the following information – five to ten minutes is usually sufficient.

- When, why, and by whom was the idea for the project initiated
- An explanation of the project 's national and/or state sponsors
- What materials are offered

- How the project materials were developed, tested, and evaluated

Activities Experienced by Participants

Plan to present activities in a way that engages the participants as learners first, then allows them to reflect on the activities from their perspective as educators.

Be sure to always be prepared. Be sure to have backup plans for outdoor activities in case the weather is unfavorable. Sometimes, you will run through activities faster than you plan, so be sure to have an extra activity or two ready just in case. By carefully preparing ahead of time, you can make your workshop run smoothly no matter what comes up.

After conducting each activity, make sure to debrief the educators. Many of the discussion questions in the activities are excellent and demonstrate how the activities teach higher order thinking skills. Go over concepts that the activity was supposed to teach, offer ideas on ways to change the activity to teach different concepts and ask for ideas on how to enhance the activities. Be sure to record suggestions from the educators and incorporate them into your next training session.

A Walk on the Wild Side

Plan how you will help participants become familiar with the contents of the activity guide. You may choose to conduct a walk-through, pointing out important elements along the way. Or you might prefer to use questions in a competition between small groups. One way to go through the guide includes asking questions about specific content found throughout. An example of this activity, A Walk on the Wild Side, can be found in the Appendix.

Consider handing out the activity guides and doing the hike after lunch or at the end of the workshop to keep participants in attendance. Otherwise, if guides are given out before lunch then you may lose some of the participants during lunch. Remember, participants must take the full 6-hour workshop in order to receive an activity guide.

Other Resources

Consider how you will introduce participants to books, materials, or local resources that can supplement the project's activities. For example, you could display books and materials throughout the day. For resources such as parks, arboretums, nature centers, museums, and local conservation groups, you might make a resource chart that participants add to throughout the day then copy and send the ideas to participants afterwards. If your workshop is held at a park or a nature center, consider having a staff member welcome the group and take a few minutes to discuss the setting, what offerings may be available to school groups, and other resources they may have available for educators.

Individual Classroom Planning

One of the initial questions participants are most likely to ask when they attend the workshop is —*How can I use the projects in my classroom?* Individual classroom planning is an important component to include if working with a group of formal educators. Once your workshop participants have become familiar with the project and some of the activities, they need time to directly connect these new materials to the needs of their students and to their own teaching goals.

Plan adequate time for this component, even if you have to shorten something else. You might lead a brainstorming session and ask everyone to share their ideas. You could have participants form groups and devise plans for implementing the project in their classrooms, and then come together for discussion with the whole group at the end. Clustering participants by grades or subject areas is often helpful here. You might also consider asking them to select lessons that they might use in the next week, month, or school term. This helps to emphasize that the projects are not something extra for them to do, but actually can help participants teach what they already are planning to cover.

Workshop Wrap-up and Evaluation

Workshop endings are just as important as workshop beginnings. Plan at least 15 minutes to wrap up the material. Consider using one of the wrap-up activities presented below.

- Memory circle. Have participants share something they learned or experienced at the workshop.
- Complete the sentence —I plan to use this guide to...
- Postcards. Have participants address postcards to themselves and then write a goal on the back on how they plan to use the guide. Project coordinators then send these postcards to participants approximately six months later as a reminder of the goal they set.

In addition, make sure attendees fill out a workshop evaluation form. These forms are important for assessing the workshop and must be submitted to the state coordinator following the workshop. Have enough copies of the evaluations for all participants, plus a few extra.

Certificates and Feedback

If you have the names of participants ahead of time, then consider creating certificates acknowledging completion of the workshop. Alternatively, you can print blank certificates before the workshop and then add the names during the workshop. If you would like a certificate template, then contact the Maryland Project WILD state coordinator.

Using the Conceptual Framework for Project WILD

The Conceptual Framework serves as the conceptual basis for the activities in the Project WILD and Aquatic Project WILD. In other words, it is the science behind every activity. The framework is broken down into three main sections:

Ecological Knowledge – Activities found in this section are generally introductory lessons that focus on awareness of wildlife issues and habitat. Under Ecological Knowledge, you'll find the following sub - topics:

- (WP) Wildlife Populations – addresses characteristics and population dynamics
- (HN) Habitats, Ecosystems and Niches – addresses the importance of these topics as well as distribution.
- (ID) Interdependence – addresses commonalities and interactions among living things.
- (CA) Changes and Adaptations – addressing environmental changes and organism adaptations.
- (BD) Biodiversity – addressing the types of biodiversity, human influence, and the importance of habitat.

Social and Political Knowledge – Activities found in this section build on awareness and move the student toward knowledge and understanding; by examining human cultures, economics and politics and their effects on people's attitudes towards natural resources. Under Social and Political Knowledge, you'll find the following sub - topics:

- (CP) Cultural Perspectives – addresses cultural development, expressions, and appreciation of wildlife and natural resources
- (EC) Economic, Commercial and Recreational Considerations: Addresses how these impact wildlife and the environment
- (HG) Historical and Geographic Development – addresses the development of society and commerce as related to natural resources.
- (PL) Political and Legislative Framework – addresses both domestic and international issues.

Sustaining Fish and Wildlife Resources – Activities found in this final section are generally higher level lessons that take the students from understanding to action. The activities are designed to serve as a way for students to recognize, evaluate, and make responsible choices in their own lives regarding natural resources that reflect the knowledge and skills they've acquired in earlier activities. Under Sustaining Fish and Wildlife Resources, you'll find the following sub - topics:

- (AA) Attitudes and Awareness – addresses human perspectives and values towards wildlife and the environment.

- (HI) Human Impacts – addresses both positive and negative impacts on wildlife and the environment.
- (IT) Issues and Trends – addresses issues and trends in global perspectives, land use, consumptive and non - consumptive uses of wildlife, and wildlife populations.
- (WM) Wildlife Management – addresses basic concepts related to management considerations and practices.
- (RA) Responsible Action and Service – focuses on how students and others can take action on behalf of wildlife and the environment.

Basically, you need to know this in order to learn how the activities are laid out. The teachers will need to know it in case they want to find an activity that meets a specific concept or topic they are trying to teach.

In addition to the conceptual framework, Project WILD material is also correlated to **North American Association for Environmental Education's (NAAEE)** as well as **National Science Standards**. These two alignments are excellent selling points to get educators on board with receiving a Project WILD training. The correlations are available for download on the National Project WILD website found here:

<http://www.projectwild.org/CorrelationstotheNationalScienceStandards.htm>

The following alignments can be accessed from the MD DNR webpage:

http://dnr2.maryland.gov/wildlife/Pages/Education/PW_alignments_mels.aspx

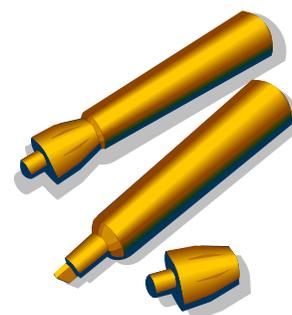
- **Common Core- English Language Arts alignments (Aquatic WILD, 2013-present)**
- **Maryland Environmental Literacy alignments (all guides)**
- **Next Generation Science Standards (Terrestrial WILD)**



Facilitator Resource Trunk

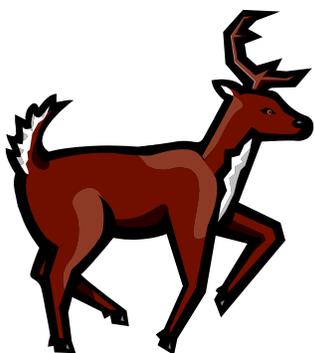
In addition to the materials the project coordinator will send, you may want to bring the following supplies as well as any other props for specific activities you are planning. If you conduct workshops often, then you may wish to keep a resource trunk full of items useful to conducting workshops such as the following:

- Bandannas or other material to mark people
- Construction paper and/or computer paper of different sizes
- Flip chart, easel, and markers, or white board and dry erase markers
- Handouts, masters, and copies
- Masking tape, glue, and/or scissors
- Name tags
- Markers (permanent and non-permanent)
- Paper bags
- Paper clips or rubber bands
- Paper plates
- Pens or pencils
- Poker chips or some kind of counting chip
- Post-it notes
- Receipt book for workshop payments, if needed
- Resource materials that supplement activities and related environmental education curricula and guides
- Rulers
- String or yarn
- Supplies and props needed for specific activities, and instructions
- Thumbtacks or push pins
- Ziploc bags



Also consider reserving an education trunk or two from MD DNR to enhance your activities. These trunks are free to borrow for 1-2 weeks at a time and contain components for related Project WILD activities.

- [Aquatic Invasive Species Trunk](#)
- [Bat Trunk \(Baltimore only\)](#)
- [Black Bear Trunk](#)
- [Furbearer Trunk](#)
- [White-Tailed Deer Trunk](#)
- [Wild Turkey Trunk](#)



For more information, then please visit the following website:

http://dnr2.maryland.gov/wildlife/Pages/Education/education_trunks.aspx

Facilitator Resources

National Project WILD site

- <http://www.projectwild.org/>

Maryland Project WILD site

- <http://dnr2.maryland.gov/wildlife/Pages/Education/ProjectWILD.aspx>
Contains facilitator page with workshop forms as well as supplemental material to run activities
- State Coordinator Contact:
 - Kerry Wixted
Wildlife and Heritage Service
580 Taylor Ave, E-1
Annapolis, MD 21401
kerry.wixted@maryland.gov
Phone: 410-260-8566
Fax: 410-260-8596

Maryland Wildlife Lists and Information

- *Contains lists of animals found in Maryland as well as associated fact sheets*
- http://dnr2.maryland.gov/wildlife/Pages/plants_wildlife/mdwllists.aspx

Maryland's Wild Acres

- *Provides information sheets on common wildlife species and ways to attract them to your backyard or schoolyard*
- <http://dnr2.maryland.gov/wildlife/Pages/habitat/wildacres.aspx>

Arkkive

- *Image and video resource for thousands of wildlife species found around the world*
- <http://www.arkive.org> ; <http://www.arkive.org/education/>

Google Drive

- *Free resource that allows you to store and edit documents between groups as well as set up registration forms online. To store documents and create forms, then you need a Google Account, however, participants which access the documents and forms do not need a Google account.*
- <https://drive.google.com/>

Appendix

Table of Contents:

- Sample Advertising Blurbs
- Sample Agendas
 - Terrestrial WILD Workshop
 - Aquatic WILD Workshop
 - Combined WILD Workshop
- Sample Project WILD Introduction
- Sample Icebreaker Activity
 - Wild Bingo
 - Nature-based Classroom Icebreakers
- Field Investigations
- A Walk on the Wild Side Activity and Answers



Sample Advertising Blurbs

Combined WILD/Aquatic WILD workshop:

Learn how to teach K-12 students about wildlife and conservation using engaging and fun lessons! Throughout the day, educators will participate in hands-on Project WILD activities and learn about local resources. The Project WILD program has over 100 lessons in two curriculum guides.

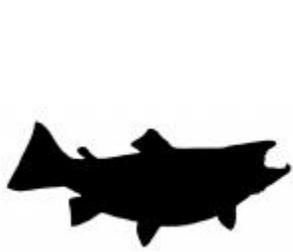
The all new Aquatic WILD guide contains STEM connections, field investigations, and career connections. All participants who complete the workshop will receive the two guides upon workshop completion. Participants may be eligible to receive 1 MSDE Professional Development Credit when combined with other workshops.

Project WILD (Terrestrial only):

Get WILD about learning! Join us in discovering outdoor and indoor wildlife activities through an active, hands-on workshop. This workshop includes the Project WILD guide and addresses the Next Generation Science Standards and STEM.

Aquatic WILD only:

Get WILD about learning! Join us in discovering outdoor and indoor wildlife activities through an active, hands-on workshop. This workshop includes the newly updated Aquatic WILD guide which includes field investigations, STEM connections, and career links for all activities.



Project WILD Terrestrial Workshop Agenda

1:00 pm: Icebreaker Activity
Intro to Project WILD
Agenda Overview

1:30 pm: *Let's get WILD!*

- First Impressions, pg 178
- How Many Bears Can Live in the Forest, pg 23
- Urban Nature Search, pg 70
- Oh, Deer! pg 36

3:30 pm: Break

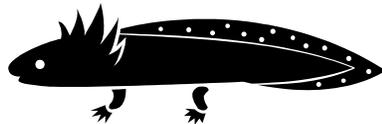
3:45 pm: *Let's get WILD again!*

- What's for Dinner? Pg 96
- Hazardous Links, Possible Solutions, pg 326
- Bottleneck Genes, pg 172

5:30 pm: A Walk on the Wild Side

5:50pm: Wrap-up/Evaluations

*Thanks for Coming and Have a Great Day!
Facilitator Name & Contact info*



<http://dnr2.maryland.gov/wildlife/Pages/Education/ProjectWILD.aspx>



Project WILD Aquatic Workshop Agenda

1:00 pm: Icebreaker Activity
Intro to Project WILD
Agenda Overview

1:30 pm: *Let's get WILD!*

- Are You Me? pg 2A
- Fashion a Fish, pg 56A
- Migration Headache, pg 15A

3:30 pm: Break

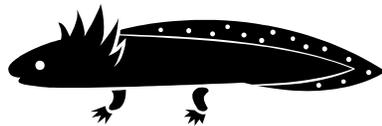
3:45 pm: *Let's get WILD again!*

- Field Investigations and Water Safari, pg 37A

4:30 pm: A Walk on the Wild Side

4:50pm: Wrap-up/Evaluations

*Thanks for Coming and Have a Great Day!
Facilitator Name & Contact info*



<http://dnr2.maryland.gov/wildlife/Pages/Education/ProjectWILD.aspx>



Project WILD Workshop Agenda

9:30 am: Icebreaker Activity
Intro to Project WILD
Agenda Overview

10:00 am: *Let's get WILD!*

- First Impressions, pg 178
- Fashion a Fish, pg 56A
- Migration Headache, pg 15A
- How Many Bears Can Live in the Forest, pg 23

12:00 pm: Lunch

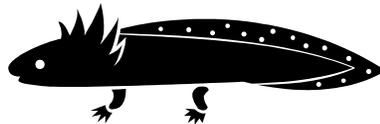
12:35 pm: *Let's get WILD again!*

- What's for Dinner? Pg 96
- Hazardous Links, Possible Solutions, pg 326
- Oh, Deer!, pg 36
- Field Investigations & Water Safari, pg 37A

3:00 pm: A Walk on the Wild Side

3:20pm: Wrap-up/Evaluations

Thanks for Coming and Have a Great Day!
Facilitator Name & Contact info



<http://dnr2.maryland.gov/wildlife/Pages/Education/ProjectWILD.aspx>

Project WILD Workshop Introduction

Project WILD became available in 1983 through the hard work and dedication of many groups including the Council for Environmental Education, the Western Association of Fish and Wildlife Agencies and state departments of education. Project WILD has been in MD since 1987. In 2006 Project WILD celebrated a milestone achievement of having trained 1,000,000 educators. Fifty state sponsors plus Puerto Rico; additional countries including Canada, Czech Republic, Iceland, India, Japan and Sweden sponsor the program.

Since its inception in 1983, more than 1.3 million educators have been trained in the Project WILD curriculum. Project WILD curriculum materials adhere to strict efforts for balance and objectivity and are backed by sound educational practices and theory. The Project WILD curriculum has been field tested on multiple occasions, and there are over 40 studies demonstrating its effectiveness in student learning. Materials are frequently updated to keep up with education trends. The Aquatic WILD guide was recently expanded in 2013 to include STEM, career connections, and field investigations.

Project WILD is an interdisciplinary conservation and environmental education program emphasizing wildlife. The program emphasizes wildlife because of its intrinsic, ecological value, as well as wildlife's role in teaching how ecosystems function. The program is designed for educators of all types (like you!) who work with children from kindergarten through high school age. As you go through today's activities, you will also see that many of our activities are also fun and educational for adults. Project WILD is distributed through a workshop format only.

Project WILD enhances student learning in all skill and subject areas through hands-on activities that fulfill their natural interest in the environment. Project WILD teaches students *how to think, not what to think*.

The conceptual framework for Project WILD includes 3 categories:

1. Ecological Knowledge
2. Social and Political Knowledge
3. Sustaining Fish and Wildlife Populations



Wild Bingo



Directions: Find an individual who meets the requirements described in each box and place his/her name there. Continue to fill all the boxes with names of persons in the group, using each name only once. When you have completed all the squares, show your results to one of the facilitators.

A person who was born outside of Maryland _____	Someone who rarely eats red meat _____	Someone who likes to photograph wildlife _____	Someone who likes to ride bicycles _____
Someone who jogs regularly _____	Someone who knows what a Nutria is _____	Someone who likes to backpack _____	Someone who likes to go birding _____
Someone who recycles paper or glass _____	Someone who carries a fishing license _____	A native Marylander _____	Someone who knows who Aldo Leopold is _____
Someone who enjoys fishing _____	Someone who has a "heron" license plate _____	Someone who has traveled outside of the US _____	Someone who knows what 'herping' is _____

Wild Bingo was adapted from Idaho Project WILD by Dr. Debra Thatcher.



Nature-based Classroom Ice Breakers

Who Am I?

For this activity tape or pin the name of a wildlife species on the back of each participant and make sure everyone has paper and a pencil. Each person tries to figure out what animal he or she is by walking up to other participants and getting clues from them. For example, Person A gives clues to Person B by briefly describing what Person B is in one to four words. Person B writes down this description and then briefly describes what Person A is in one to four words. Person A writes down this clue and both people move on to other participants for new clues. Be sure to set a time limit before the group begins the activity. Wrap up by asking for three to five volunteers to guess what they think they are, based on the clues they received.

Guess My Name

Ask the participants to make a list of ten words to describe an animal of their choice on a sheet of paper. They then tape the sheet of paper to themselves and move about the room, reading each other's lists. They introduce themselves to each other and try to guess what animal each list describes.

Artistic Introductions

Ask participants to draw or model out of clay an animal they feel represents themselves. Divide the participants into groups and have each explain why (s)he chose the animal (s)he did. Or, put pictures of a variety of animals on a large table and have participants choose one they feel represents themselves. Divide into groups and have each participant explain why (s)he chose a particular animal.

Sound Off

Write out cards with the name of one animal on each. Make two cards for each animal. Hand out a card to each participant, making sure that pairs of animals are distributed. Arrange the participants in a circle. Explain that they are to make the sound of the animal on their card to find the other animal of their species. No talking is allowed. Once they find their partner, they are to stand by them. Participants can also be blind-folded and/or groups of more than two animals can be produced by making more cards for each animal.

Significant Stories

Ask each participant to relate a story about a significant experience involving nature, animals, trees, etc.

Field Investigations

Field investigations are a great way to get students outdoors and conducting science. Field investigations are the systematic collection of data for the purposes of scientific understanding. They are designed to answer an investigative question through the collection of data and communication of results.

Why conduct field investigations with students?

- Students learn scientific inquiry skills
- Students become systems thinkers
- Students obtain firsthand research experience
- Students learn science doesn't only happen inside
- Students participate in outdoor experiences which can increase problem solving abilities & motivation
- It's fun!

Field Investigation Process:

1. Form a researchable question
2. Identify research setting
3. Identify variable(s) of interest
4. Collect data
5. Analyze data
6. Draw conclusions
7. Discuss findings



Types of Field Investigations:

- **Descriptive:** collect data to describe/quantify
 - Question examples: What species of birds can be found in my schoolyard?
What plants can be found in my schoolyard?
- **Comparative:** collect data to compare variables
 - Question examples: Are the bird species in my schoolyard different from the bird species in the local park? Is there a difference in the plant species that grow in the sun and plant species that grow in the shade?
- **Correlative:** collect data to examine relationships
 - Question example: Is there a relationship between temperature and plant growth?



A Walk on the WILD Side Answers

1. Each WILD activity is broken up into what categories?
 - a. Objective
 - b. method
 - c. background
 - d. materials
 - h. procedure
 - i. evaluation
 - j. extensions

2. What are the STEM connections for Got Water?

Pg 29: Design the ideal habitat; research common native plants; use an aerial map...

3. Name 4 activities in the terrestrial WILD book that illustrate camouflage.

Quick Frozen Critters, Surprise Terrarium, The Thicket Game, Color Crazy (found in topic index page 503)

4. Name two 'Questions to Investigate' for Gone Fishing.

Pg 275- What fish species are at the study site? How many fish might we catch in a particular water body? What is the food preference of the fish caught? etc

5. What activities would you use if you wanted to do an Aquatic Ecosystem unit?

Pg. 326: Unit Planning: Fashion a Fish, Water Safari, Blue Ribbon Niche...

6. What activities in the terrestrial WILD guide use Problem Solving Skills?
 - a. Pg 494: Skills index: Adaptation Artistry, Arctic Survival, Birds of Prey, etc

