



Four Winds Nature Institute
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INFORMATION FOR NATURE PROGRAM VOLUNTEERS

Welcome to the Four Winds Nature Program! We are a community of learners—adult volunteers and children—exploring the nearby natural world together. Nurturing a child’s sense of place, wonder, and scientific curiosity is important work, and it is the dedication of the school’s Nature Program volunteers that makes this happen. Thank you!



As Nature Program volunteers, you and your teaching partner(s) will present monthly lessons to K-6 elementary school students. Kids love taking part in these science lessons, having you as a guest teacher, and exploring nature outside in the schoolyard.

To prepare, you will attend a two-hour workshop led by a Four Winds naturalist-educator prior to every lesson. Here you’ll do indoor and outdoor hands-on activities to help you learn the subject matter *and* ways to present the lesson to children. We’ll discuss strategies to make each lesson engaging and effective for your age group.

Your school’s Nature Program Volunteer Coordinator will be your main point of contact with Four Winds, ready to respond to your questions and concerns. You and the other volunteers will put together the props, games, and materials you’ll need for each lesson. Four Winds provides the curriculum online at nearbynature.fwni.org where you’ll find background essays, lesson plans/activity descriptions, and puppet show scripts, plus related teaching materials (be sure to get the protected materials password from the Volunteer Coordinator).

At the start of the school year, you’ll meet with the classroom teacher and schedule the year’s visits. We’ve created a Teacher Resource Page for each lesson that identifies the lesson’s standards—all of our lessons support the *Next Generation Science Standards* (NGSS) and the *Common Core*—and includes suggestions for integrating the Nature Program into the curriculum. You should talk with the teacher before each lesson about what the students will learn, which activities you’ll lead, and how he/she might assist you.

There is a great deal that classroom teachers must teach, and school days are packed, so it is important that our lessons provide valuable science education to students. Your good preparation, enthusiasm, curiosity, and creativity make this happen. **Thank you for being part of this learning community!**

KNOWING YOUR SCHOOL'S POLICIES AND PROCEDURES

There are different policies for volunteers and guest presenters at every school, on subjects including confidentiality, background checks, emergency protocols, safety outside, etc. Volunteers should review the school handbook and be familiar with school policies. Classroom teachers are expected to stay with the class when Nature Program volunteers are presenting since the teacher is ultimately responsible for the students.

PREPARING FOR THE LESSONS

Attend the training workshop!* This is the best way to prepare yourself for leading a successful lesson. If you can't attend, make sure your teaching partner can.

The Four Winds Nature Program lessons are available online at nearbynature.fwni.org. Each lesson includes a background essay, lesson plan/activity write-up and puppet show. The lessons for each theme are also available as a printable pdf booklet. First, download the pdf booklet from the password protected Resources page under each theme. Then, select pages from the pdf to print. This will maintain the easy-to-read format and save a good deal of paper.

Read the background information for the lesson and consider doing a bit more research so you'll feel comfortable with the children's questions.

Many additional resources are available on nearbynature.fwni.org, such as:

- children's glossary in Table of Contents
- children and adult bibliographies, journal cover, and student certificate in Resources (password protected)
- unit summary, teacher resource page, slide show scripts, diagrams, data sheets, and illustrations in Materials (password protected)

Keep in touch with your Volunteer Coordinator (by email or phone) so everyone is on the same page regarding lesson scheduling, materials, etc. Remember to add your lesson schedule to the school-wide Nature Program schedule at the beginning of the year.



Remember to share the lesson plan and Teacher Resource Page every month! Throughout the year, check in with the teacher for ideas and suggestions for making these lessons as effective as possible.

* Although our program is designed for children, our adult volunteers need the time and space to focus on learning an in-depth topic in a short time. Thus we ask adults not to bring children to the workshops. We know exceptions are sometimes necessary, but talk first as a group about childcare arrangements.

WORKING WITH YOUR CLASSROOM TEACHER

You will be working closely with the classroom teacher this year as part of the Nature Program, and so you should plan to meet with the teacher a week or two before you go into the classroom in September. Make sure the teacher has a list of the workshop topics that are going to be covered throughout the year. Together with the teacher set up a schedule of when each workshop will be taught. It might help to fill out the schedule below with the teacher, and then leave a copy with the teacher. Plus, there is a welcome letter to teachers included on the final page of this packet for you to pass along to your classroom teacher.

DATE	TOPIC
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

At this first orientation meeting with the teacher, it's helpful to discuss the following topics:

- ◆ Classroom rules and expectations
- ◆ Allergies or other health/food concerns
- ◆ Fire Drill procedures and exits to use
- ◆ School policies on confidentiality, field trips, emergency protocols, permission slips, safety, school boundaries, etc.
- ◆ Classroom management strategies
- ◆ How students can be prepared for outdoor learning
- ◆ Any special considerations you may need to know about the students in the classroom – special needs, language skills, subjects of interest, etc.
- ◆ Encourage the teacher to visit www.nearbynature.fwni.org to become familiar with the lessons and to access information about alignment with the Next Generation Science Standards and Common Core.

Teachers can help in the following ways to facilitate the volunteer-led workshops in the classroom:

- ◆ Meet with volunteers to review the month's topic and lesson plan.
- ◆ Help with classroom management and set the tone for outdoor explorations.
- ◆ Send home notices about upcoming Four Winds' workshops with reminders to children to bring outdoor clothing. And get signed permission slips for outings, if needed.
- ◆ Help assign children to groups when needed.
- ◆ Be available to lead small group activities both indoors and outside.
- ◆ Talk with volunteers about any concerns or suggestions.
- ◆ Consider ways to integrate the unit into the curriculum: pre- or post- workshop activities, non-fiction reading, science journals, etc. See the Teacher Resource Page(s) for ideas.

WORKING WITH YOUR TEACHING PARTNER

Meet with your partner a few days before the lesson so you can:

- be clear on what you all want the students to learn that month;
- choose the activities you'll include and the order in which you'll present them;
- decide who will lead each activity and who will distribute/collect materials;



- write down an outline of your classroom presentation and note who is doing what; consider your transitions, plan review questions you'll ask, and how materials will be passed out. You may need to prepare and bring in additional materials, such as pressed flowers, leaves, etc.
- Plan to meet at least 15 minutes before the lesson to get set up. Bring your outline!

Get outside yourself and look at winter weeds, spider webs, cloud patterns, or whatever is on tap that month. This helps you learn the subject and where to look for interesting things.

Scout out the schoolyard or nearby neighborhood ahead of time to prepare for outdoor activities. You want the children to discover things for themselves, so try to take them to a place where they will find what you all are looking for.

HAVING FUN WHILE KEEPING ORDER

Although we encourage children's enthusiasm, we also need to avoid chaos. Make sure your class understands that you expect them to follow the classroom rules while you are there.

- **Hand out nametags** at the beginning of the lesson, then address the children by name. This shows respect and helps you call on them or get their attention.



- **Make sure everyone is listening** before you give directions. Then be clear and concise, and demonstrate, if possible, what you mean. Wait to hand out materials until after you've given directions.
- **Get the students' attention** using their teacher's usual method (e.g. hand-clapping).
- **Invite** a distracted child to stand next to you. Invite a fidgety child to pass out materials.

The teacher is ultimately responsible for the children; defer to him/her if any problems arise. Teachers should remain with you and the class during the workshop.

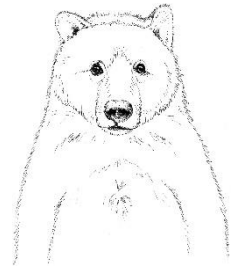
ENGAGING CHILDREN IN SCIENCE PRACTICES, DISCUSSION, & LEARNING

Each unit begins by introducing a natural phenomenon that children can explore, observe, wonder about, question, and discuss, usually in small groups. During these initial explorations, adults can:

- observe what children are doing, asking, and discussing.
- engage in student learning with noticing, wondering, and thinking questions.
- use observations to frame follow-up activities.

There is sure to be energy and excitement in the air as children make discoveries and follow their natural curiosities. As adults, we can remember that feeling of joy and wonder in moments of catching frogs, collecting rocks, and gazing at passing clouds. These are the “aha” moments that tie children to their learning experiences and leave a lasting impression. Adults can channel this energy and express their own enthusiasm and curiosity by asking children about what they notice, wonder, infer, or think about the topic (suggestions below). These are the conversations of scientists. And this engagement helps children to think and feel like the scientists that they are, naturally.

- What do you notice about _____? (*the shape of the beaver chew*)
- What catches your attention?
- Can you describe this thing? What color is it/does it feel like/shape/how many legs?
- What is going on here? What do you see/hear/smell?
- I’m surprised to see _____ What surprises you?
- I wonder...
- Your question makes me wonder. What if...
- I wonder what it is like to be ___(*a bird*). Let’s pretend to be (*birds*).
- How do you know that _____? (*it is an insect*)
- What is your evidence that _____? (*a squirrel lives here*)



PUPPET SHOW TIPS

Puppetry is a valuable and fun teaching tool used in nearly every lesson.

- Decide beforehand who will handle which puppets. Highlight one person’s parts.
- Select a different voice or character for each puppet and make a note of it on the script (high, low, gruff, squeaky, nasal, complaining, cheerful, etc.).
- Move a puppet slightly when speaking; keep it still when not speaking. Turn a puppet quickly side to side to say “no”; bob up and down to say “yes”. Be creative: even stick puppets can appear to walk, run, jump, or fly.
- Be silly! The children will listen eagerly. You will be surprised how much they remember from the puppet show.
- “THE END”: Don’t forget this important sign—it tells the kids when to applaud!
- After the show, review key points by holding up each puppet and asking a question like, “What adaptation does Willy Worm have to help him escape from predators?”

GOING OUTSIDE!

Children are very curious about nature, and they look forward to going outside with you! With two Four Winds volunteers and the classroom teacher, there is plenty of supervision.

- **Pre-scout the area** before you visit with children, being alert to possible dangers such as steep cliffs, busy roads, fast streams, slippery surfaces, barbed wire, wasp nests, etc.
- **Explain the activities before** you head outside.
- **Circle up** at the beginning of an outdoor exploration to set expectations, communicate boundaries, etc. If an activity requires re-direction, use “circle up” to bring focus back to the group and the goals of the lesson (e.g. use “I notice” statements to share what you are observing and ask for student ideas to get back on track). Circle up again at the end of the lesson for closing thoughts.
- **Make it clear that outside time is not recess;** you are all scientists working outside. Explain, or have the teacher explain, expectations for students’ participation.
- **Set boundaries** within which the children may explore. Put out markers beforehand or point out specific limits, like a fence or sidewalk.
- **Get an accurate child count** before you go out (“today’s magic number”); **Do frequent head counts** and have the students count, too.
- **Try dividing the class into smaller groups.** Exploring with a partner or small group helps a child stay focused. Plan a time and place to meet back up, and a signal to call the whole group back together. Count heads again.
- **Discuss rules about collecting specimens.** It’s OK to pick things up from the ground (leaves, cones), but not living things (leaves on a plant), unless there are too many like it to count. As a rule, each group should pick just one specimen to bring back and share.
- **End activities with a big sharing circle** (or 2-3 small ones). You can form a circle with “magnetic elbows” or by sitting with legs toward the center like the spokes of a wheel.
- **Make sure kids dress for the weather.** Ask the teacher to send reminders home ahead of time. Bring extra clothing (take hats home to wash!).
- **Encourage healthy outdoor habits** as part of the routine. Explain how to avoid insect bites and stings, recognize poison ivy and other pesky plants, and check for ticks.



CLASSROOM MANAGEMENT

Feeling confident and comfortable with the students will help you be an effective teacher.

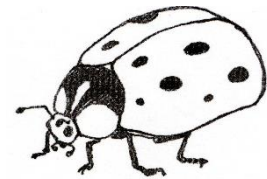
- **Set expectations and guidelines** at the start of each lesson. Let the children know that you expect their attention and respect, and that you will give them yours. Give them a brief overview of what they will be learning and doing during the lesson.
- **Keep things moving.** Jump right in with the introductory activity to capture students' attention. Alternate active hands-on activities with quieter activities so that children aren't sitting for too long.
- **Keep an eye on the time.** It's better to do fewer activities in an unhurried way than to rush through too many. It will take longer to dress for the outdoors than you think.
- **Don't feel you have to know all the answers.** Instead, say, "Wow, good question!" and, "I don't know—how could we find that out?"
- **Ask open-ended questions** and give the children time to answer them; don't rush to fill silence.
- **Make sure each child's voice is heard** at least once during the lesson, with a story or a question.
- **Give kids a chance to reflect and share.** We've included journal prompts for each lesson to encourage children to look closely, record their observations, draw, and write.

ADJUSTING LESSONS FOR AGE

Our lessons are designed for children ranging from 5 to 12 years old. Volunteers teaching kindergarten classes will take a very different approach from those teaching upper grades. After you have worked with a class for a while, it will be easy to adapt the lesson for them.

For Younger Children

- Identify just a few main points as your focus instead of squeezing in tons of information.
- Pick activities that are hands-on. Alternate sitting and moving activities in small groups.
- Choose fewer activities: the introduction, puppet show, and an outdoor activity may be plenty. You can break some activities down into smaller parts.
- Introduce and define new vocabulary as words come up.
- Be sure you have eye contact with the kids and their attention.



For Older Children

- Plan to have students work with partners (get the teacher's input on the pairings).
- Rotate students through activity stations, working with a different leader at each one.
- Spend more time on discussions, pose questions, and encourage students to make connections to other topics they have been studying.
- Give students opportunities to record their observations, take measurements, draw or write about their observations, and analyze their findings.
- Consider arranging for older children to present puppet shows to younger classes. This gives them a chance to be teachers and develop a feeling of expertise about their topic.

SLIDE SHOWS, PHOTOGRAPHS, AND SOUND FILES

Slide show presentations and color photographs for some units are loaned to each school on a flash drive at the beginning of the school year. Slide shows are formatted in Power Point and will open properly on any operating system that has Power Point (for PC or Mac) or Keynote (for Mac). If needed, there is an open source download of programs in Open Office for Macs that reads files from Microsoft programs, such as Power Point, Word, and Excel. Slide show scripts are useful for telling the story that is illustrated through the photographs on the slides. They are located on nearbynature.fwni.org under Materials.

Some activities suggest using large color photographs to initiate student observations. These are provided on the loaned flash drive in a folder labeled “jpg files”. It is recommended that photographs are printed from the jpg files because they print larger and with better resolution than when the slide show is printed.

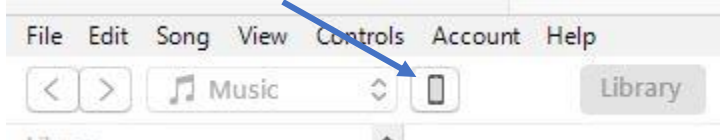
Some activities suggest using sound files of animals in nature. Sound files are provided on loaned CDs and flash drives in a folder labeled “sound files”. Sound files can be transferred from the flash drive to a mobile device for use in outdoor activities. Instructions follow for how to transfer the sound files to an iPhone using iTunes. The steps to this process may differ slightly with a different App, operating system, or mobile device.

To import sound files from the flash drive into iTunes (for Mac or PC users):

1. Open iTunes.
2. From the “File” drop-down menu, choose “Add Folder to Library”.
3. Navigate to the “sound files” folder on the flash drive and select it without opening the folder. Click “Select Folder”. If you’ve opened the folder and it looks empty, click the back arrow and then click “Select Folder”.
4. Click “Songs” on the iTunes sidebar to navigate through the iTunes music library. Locate the sound files in the music library.
5. Select all sound files for the lesson by holding down “Ctrl” as each song is selected.
6. Right-click on selected files and choose “Add to Playlist > New Playlist (name the playlist, i.e. “frog calls”)

To sync sound files from iTunes to an iPhone:

1. Connect the mobile device to the computer.
2. Click on the device icon next to the Music tab at the top of the iTunes screen.



3. Now, click “Music” from the sidebar. Choose “Selected playlists, artists, albums, and genres”.
4. Check the playlist to sync (i.e. frog calls).
5. Click “Done”. Open the playlist from the Music App on the mobile device.

PACKING UP, CHECKING OUT

- ✓ **Please leave the classroom in good order**—we want teachers to love Four Winds!
- ✓ **Reorganize the teaching materials** and return them to the cart, box, or shelf.
- ✓ **Replace missing or damaged items** and things that have been used up.
- ✓ **Check off your visit** on the school-wide calendar to keep your coordinator up to date.

JUST REMEMBER...

- * Play, laugh, enjoy yourself! Your sense of humor and fun keeps the kids on their toes.
- * Don't expect everything to be perfect. Be open to "teachable moments" and turn mistakes into learning opportunities.
- * Most of all, be light-hearted and enthusiastic about what you ALL are learning together. Children learn by example to appreciate nature's wonders. **Have fun!**





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Dear Teachers,

Welcome to the Nature Program, Four Winds' natural science lessons for elementary school children. Volunteers are looking forward to bringing fun and engaging workshops to our students this year. These monthly lessons address key science standards and provide time for students to practice important science skills. The topics are current, place-based, and relevant for students. Your participation is warmly encouraged as it shows the children that these workshops are an important part of the school day.

Here are some ways you can help to facilitate the volunteer-led workshops in your class so that your volunteers can be successful presenters in your classroom:

- Meet with your volunteers ahead of time to review the month's topic and lesson plan.
- Help with classroom management and setting the tone for outdoor science explorations.
- Send home notices about upcoming Four Winds' workshops with reminders to children to bring outdoor clothing. Organize signed permission slips for off-site outings, if needed.
- Help assign children to groups, as needed.
- Be available to lead small group activities both indoors and outside.
- Consider ways to integrate the unit into the curriculum: pre- or post-workshop activities, non-fiction reading, science journals, etc.
- Give feedback to volunteers and talk with the volunteer coordinator if you have any suggestions or concerns.

You will want to discuss the following topics with volunteers before they present their first workshop in your classroom:

- classroom rules, expectations, and special needs
- allergies or other health/food concerns
- Fire Drill exits to use and Secure the School protocol
- school policy regarding field trips, walks, permission slips, etc.
- classroom management strategies
- any special issues you'd like the volunteers in your classroom to know

We hope that you will be able to integrate these natural science topics with other lessons throughout the year. Your Four Winds volunteers can provide extension activity ideas for each unit. In some classrooms, children keep journals in which they write or draw something relating to each topic they explore during the year. Each Nature Program topic can be a wonderful starting place for non-fiction reading and writing with evidence. Plus, letter-writing, song-writing, composing a poem, drawing a picture, or recording nature observations on a calendar are all ways that help children review what they have learned.

We welcome your comments and suggestions and greatly appreciate your support and the time you give Four Winds volunteers in the classroom. Thank you!