

Learning outside can be an enriching way for students to investigate questions, apply concepts, and engage beyond the barriers of a classroom. Here are some key strategies for managing groups and facilitating outdoor learning before and during the City Nature Challenge. You can find an extensive list of these resources at the end of this guide.

While engaging in outdoor inquiry, students will likely ask a lot of questions about what they are observing. **You don't need to know all the answers!** Encourage the students to ask good questions, make predictions, and record evidence. Students and teachers can research the answers later to discover the answers together.



Choose an Outdoor Space

- Scout the area ahead of time to establish best places for activity (see teaching strategies for details).
- For biodiversity explorations, consider where you will find good habitats: unmowed or weedy areas, school gardens, trees, fallen logs, around drains, corners of buildings, under (safe) equipment like mats, trash cans, and more.
- If you don't have these things in your schoolyard or space, create your own habitats and wildlife attractors. The sooner you set these up, the more time for wildlife to discover them:

Set up a cover board: put a log, pieces of wood or similar materials around the space to create habitat for invertebrates and small vertebrates to move into

Hang a bird feeder nearby

Plant a small garden (if you have time!) or put window boxes with some flowers outside your classroom

- Consider the best times to go outside for your schedule, and for animals. Morning may be a good time to look and listen for birds, warm weather and afternoon sun is often good for flying insects, ground arthropods and cold-blooded vertebrates.
- Consider any dangerous or poisonous wildlife or plants so you can avoid them.



Prepare to go Outside

- Start setting outdoor behavior expectations and practicing procedures before the day of your activity.
Adopt-a-spot to build routine. Give students a space to visit throughout the year, to sit quietly to read, make drawings and observations, explore the plant, fungi, and animal life that occurs there.
Go outside often, start with standard activities such as reading, drawing, or writing.
- If you are planning to go off campus or need permission, get permission from administration, send notes home to parents, and be sure to communicate with whomever needs information. The day of the activity, remind administration where you will be.
- Consider inviting additional adults to participate such as parents, volunteers, or support staff at the school.

Day Before Outdoor Activity:

- Remind students to wear clothing that can get dirty and to dress for the weather.
- Scan the outdoor area for any dangers (broken glass, etc.) and accessibility.

Day Of Outdoor Activity:

- Go over the activity inside including equipment use, lesson instructions, and behavior reminders.
- Pack first aid kit, student allergy and medical information, and phone.



Set Behavioral Expectations

- Have a clear, concise transition from the classroom to your outdoor space, use a different door than recess
- Establish clear, visible boundaries for exploration
- Count students often
- Set partners or small groups
- Use a “signal” for students to freeze or come back together to a designated meeting spot:

A sound-maker like a whistle or bell

A call and response such as the teacher calls "BIO" and students respond "DIVERSITY"

Set a class contract for how students should interact with each other and their environment:

- Look out for yourself and your peers whenever you are in an outdoor space
- If you are walking along designated trails, stay on the trail to protect wildlife habitat
- When observing wildlife remember you are in their home
- Do not pick up live animals or plants, or use containers if you pick up organisms temporarily
- The more quiet and calm you are, the less likely you will scare off wildlife
- Follow the Golden Rule: treat living things how you would like to be treated
- Leave No Trace: take care to pack it in and pack it out, respect ecological processes by leaving the outdoor space the way you found it and not littering



Prepare for Differentiation and Accessibility

- In an outdoor setting, many students with high energy or behavioral challenges shine, especially if given a job / responsibility. This often translates into better behavior in class if students know that they could learn outside as a reward. Here are some ideas for jobs in the field:

Time Keeper

Supply Master

Photographer

Leave No Trace Guru: make sure nothing is left behind outside

- Consider accessibility to areas for anyone with physical challenges or visual impairment; terrain, barriers
- Communicate with special education teachers, paraprofessionals, and others beforehand for behavior, sensory sensitivity, and any other information; invite to join
- Repeat boundaries and expectations often



Tips for Teaching Outside

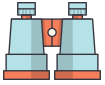
Mimic regular classroom structure and routine whenever possible

Use a whiteboard to write questions, directions, and reminders as needed

Face sun when talking to students so they do not squint while looking at you

Give some time for exploration, reflection time to make observations and come up with questions

Speak more quietly so students have to really focus to hear you



Equipment, Collecting and Documenting Species

- Demonstrate how to use any equipment without harming organisms.
- Consider packing some of the following into an easy to carry field bag:

Clipboards/Pencils/Paper

Plastic spoons or petri dishes for holding insects

Magnifying glasses

Small containers (can reuse empty household containers)

Hula-hoops or string to identify small study-plots (can help kids focus)

- Demonstrate how to observe organisms from a distance - we do not need to photograph everything, and we don't need to catch everything
- Access to technology and mobile devices:
 - No technology:** Have data sheets, journals, or paper for students to draw what they're finding
 - Facilitated technology:** Adults carry mobile devices or cameras and students help direct adults to photograph organisms
 - Students with technology:** work in groups, teach all students how to use equipment so they can take turns - see guide to iNaturalist for more details



Additional Resources

Explore the following print and video resources for more extensive guidance for teaching outside:

- [Pacific Education Institute: Fostering Outdoor Observation Skills Guide](#)
- [BEETLES Resources for Classroom Teachers: Links to resources for science, math, after school](#)
- [Full Option Science System \(FOSS\): Taking FOSS Outdoors Folio](#)
- [FOSS Boston Schoolyard Initiative \(2004\) Video: video clips demonstrate tips and strategies with real students exploring urban schoolyards](#)
- [Boston Schoolyard Initiative: Tips and Tricks for Outdoor Classroom Management](#)
- [Article: Nature is a Powerful Teacher \(The Atlantic\)](#)
- [Article and Media: Learning and the Power of Place](#)

