



HELLO VOLUNTEERS!

Thank you for volunteering for our COSI On Wheels program! **Exploring Ecology** is one of five traveling assemblies / hands-on experiences for students in grades K-6. During this program, students will learn more about the habitats that make up our region's ecosystem and the animals and plants whose adaptations allow them to flourish. Here are some things you can look forward to on the day of the event.

The students' day begins with a 45-minute assembly during which the COSI Educator will introduce students to local habitats like prairies, forests, wetlands, and rivers. In each, students will learn more about the plants and animals that call our ecosystem home. During the assembly the students will explore pollination, seed dispersal, animal adaptations, and echolocation. The assembly is followed by hands-on activity sessions during which the students can further enhance their knowledge of ecology with your help!

The COSI On Wheels experience is designed to encourage children to ask questions and explore science. Your role during the day will be to help guide students during the hands-on sessions. You do not have to be a science expert to be a COSI On Wheels volunteer! We would like everyone to have fun and learn on the day of the program, including you. Be sure to dress comfortably because you may be on your feet for the better part of the day!

Prior to the assembly you will be given an orientation so that you can become familiar with the activities, which are listed on the back of this letter. It is important to be on time for this orientation because we have only 45 minutes to get to know each other and learn about all of the activities and the scientific concepts behind them. COSI On Wheels has five different traveling programs, so we rarely bring the same program to a school two years in a row. Even if you have volunteered for us in the past it is important to attend the orientation to learn the new information about the all-new stations for **Exploring Ecology**.

Above all, you should know that you are a vital part of this COSI On Wheels experience. It is impossible for **Exploring Ecology** to be a success without you. We at COSI, as well as the students and faculty at your school, appreciate your time, energy, and support. Be prepared for a day filled with science, learning, and FUN!

Sincerely,

The COSI On Wheels Team

Top 10 Things Every COSI On Wheels Volunteer Should Know

- 10) Get excited! The students get out of the experience what the volunteer puts into it. Your energy is contagious, as is theirs!
- 9) Wear comfortable shoes! You may be standing, stooping, bending, or leaning for long periods of time.
- 8) Layer, layer, layer! Sometimes the gym feels like you've just stepped off an airplane at the equator, while other times your lips turn blue from the frosty air. You can never tell what the temperature in the gym will be!
- 7) Bring water. You will be talking with the students all day, and it is quite refreshing to have something to wet your whistle throughout the day.
- 6) Ask questions! To the students, yourself, and the Educator. You are not expected to know all of the answers. In fact, it is a much more rewarding experience to have the students discover the answers through experimentation. You will be surprised at how a student will jump right into something to try to answer their own question.
- 5) Keep your hands clean. This can be a tough one, but make sure it is the students that are doing the experimenting, and the clean up!
- 4) Don't underestimate the abilities of the students. It's okay for them to try and fail, then try again.
- 3) Have fun! This is an informal setting with very active experiments. The kids love trying things for themselves while learning at the same time!
- 2) Learn! Regardless of your experience, there are plenty of opportunities to learn new things. This is a very fun way to expand your brain.

And the #1 thing you should know is.....

- 1) Thank you, thank you, thank you! We could not do this without you. Your time and effort is very much appreciated and you have really made a difference in a child's life!

EXPLORING ECOLOGY HANDS-ON ACTIVITIES

Beaks as Tools:	Using “bird beak” tools, students will explore how a bird’s unique beak is an adaptation, specialized to help it survive in its particular habitat and circumstances.
C.A.M.O:	Students will explore how adaptations such as camouflage help animals blend in with their physical surroundings to survive in their habitat.
Ecological Monitoring:	Using observational skills, students will examine the same habitat in all four seasons to record which plants and animals change – and which don’t – throughout the year.
Eye See You:	Viewing the world through special “eye” goggles, students will examine how vision is an adaptation with each organism’s eyes suited perfectly to its survival.
Just Fur Science:	Touching real animal furs, students will experience how all mammal fur is not the same – each animal’s fur is adapted to fit its specific needs, from bear to otter.
Mighty Morphin’ Power Changers:	Students will explore the benefits of life cycles wherein organisms undergo complete body changes, and how this cycle fits into the larger ecosystem.
ProSEED to Grow:	Students will test different types of seeds and explore how the strategies of seed dispersal relate to the habitat in which the plant is growing.
Pyramid Power:	Constructing pyramid puzzles, students will explore the relationships balancing organisms in a fragile ecosystem, from producers to consumers to decomposers.
The Root of it All:	Using a large plant model, students will test their knowledge about the structures of a plant, the functions of each, and the role of photosynthesis in our lives.
Who’d a Trunk it:	Using real cross-section samples from trees, students will explore how scientists can calculate the age of trees and use that information to track habitat changes over time.