Peace of Earth Environmental Learning Center

PROGRAM CURRICULUM UNITS

All curriculum units are correlated with the new Illinois Learning Standards incorporating the Common Core and will be delivered at an age-appropriate level for your students. Teacher input is encouraged in the planning for any of these field trip (field lab) experiences so that these experiential lessons will correlate well with the academic lessons being studied in your classroom. We will custom design curriculum units to meet your needs and those of your students. The following descriptions are general. Some are better suited to certain age levels, but most can be modified to the learning level of your students.

AMAZING ANIMALS – Animals come in all shapes and sizes and each have their own interesting characteristics and behaviors. Tracks, homes, droppings, feathers and other tell-tale signs will help us *discover* the animals that live in the wild as we hike through the woods or prairie. Simulation games and activities add lots of fun and excitement to this unit.

<u>BIRD BASICS</u> – Learn the basics of bird ID through sight and sound while exploring the prairie, forest and pond. Binoculars, a *Bird Identiflyer*, and our bird feeding station are all "tools of the trade" while learning some of the unique features and behaviors of birds that live here in Illinois. Fun!

<u>BEAKS & FEET</u> – Silent flight, specialized beaks and feet and keen eyesight are just a few of the amazing <u>adaptations</u> that students will discover during their visit. How do animals survive the dangers they are constantly confronted with like weather, predators, disease, habitat destruction and more? Students will be actively involved.

<u>CREEK EXPLORATION</u> –Students will have the opportunity to explore along the edge of a shallow creek as they collect, observe, and identify the critters that live there. Increased awareness, and appreciation for the "creek (or lake or pond) community" are the goals for all of the water units offered. With older students, learn about the Illinois Eco-Watch Program and how we can determine the health of our waterways through biotic and habitat indicators.

<u>WHO EATS WHO?</u> - Food chains, food webs, special adaptations, limiting factors and much more will be investigated and experienced through interactive activities. Role-playing helps students learn how hard it is for critters to survive and that all things in nature really ARE connected.

TREES ARE TERRIFIC— Learn about trees and their importance to humans and wildlife, as well as the diversity that makes up a forest. We can make this unit as simple or complex as you wish, using a variety of learning experiences including sensory activities, concept games, how to use a tree identification guide, and investigation of forest types and layers.

ROCK ON! -GEOLOGY -- Basic rock types, fossils, soil erosion, weathering and effects of glaciations could all be included in this geology unit. Look for examples of sedimentary layering as well as fossils in a creek bed. Rock hammers and goggles will be provided for you and your "rock hounds."

<u>SURVIVING OUTDOORS</u> -- "Take only pictures and leave only footprints," describes a gentler approach to outdoor living. This unit reinforces the concept of minimum impact on the environment while at the same time teaches skills that can increase comfort level in an outdoor setting. Lots of interactive activities such as fire building, water purifying, signaling, first aid tips, and shelter-building help us accomplish this in a fun way.

<u>HABITAT CONNECTIONS</u> –Different types of wildlife habitats host many different interesting plants and animals....hardwood forests, lakes ponds, creeks, open fields, and prairies are all possible habitats we could explore. Whether you choose to explore one or more during your field session with our naturalist, you'll enjoy the exploration and first hand experience you have while you learn what makes a good habitat and how humans can affect them.

INCREDIBLE INSECTS – Have you ever went on an insect "sweep," played a "role" in an ant colony drama?...or searched for all stages of insect life in a single morning? Hands-on investigations and participation in simulated activities, teach students much about the insect world and how it affects humans, and vice versa.

<u>LAKE/POND EXPLORERS</u> – Dip nets and buckets are a must with this popular activity. A lake or a pond provides an excellent opportunity for learning of the aquatic life in this area. Proper methods of collecting, identifying, and exploring for 'critters' (organisms) gives students a wealth of experience no book could ever give. While directed by our naturalists, this unit gives the natural curiosity of students a chance to discover and learn. Participants may build an "observation pond" in order to get a closer look at the living things we find. With older students, the physical and chemical properties of the lake can be studied with lake monitoring equipment and watershed protection issues can be addressed.

MAP AND COMPASS ADVENTURES -- Basic orienteering with map and compass is a practical skill that combines math knowledge with practical field use. Each student learns how to use a compass and develops their knowledge by actually applying it out in the field. These activities may include a combination of map work, warm-up games, setting a compass course or following a course. Working together as a small group helps each student learn group dynamics and teamwork, as well as confidence in compass abilities.

MAPLE SYRUP SWEETNESS -- From sap to syrup, students learn the whole process of maple syrup production; learning to tap trees, gather maple sap, and boiling it down to syrup. The students then get to taste test the finished product. (Available January and February.)

OUT ON THE PRAIRIE— A prairie offers a glimpse into the past---at how most of Illinois looked in the early 1800's. Come and investigate this natural heritage of Illinois through prairie exploration and fun. Study plants, animals, insects, and diversity that depend on this disappearing ecosystem. Human impact (both negative and positive) is intertwined with this unit. (Most popular in the fall ---when the grasses and forbs are at their peak.)

<u>EXCITING ECOLOGY</u> – Food chains, inter-relationships, and competition are experienced through interactive activities and discussion on this field trip. Students will learn that all things in nature are connected and that the "web of life" is affected by many things. The games, hikes, and activities make these concepts come to life; so no wonder this class is a favorite.

<u>SURVIVOR</u>: <u>Predator/Prey</u> – This unit is specially designed for 5th grade or older students. Students <u>become</u> herbivores, omnivores, and carnivores in this engaging role-playing activity. The dramas they experience teach them more than a thousand words and they walk away with an exhilarating feeling. Teachers marvel at how well it reinforces what they cover in the classroom.

<u>SEASONAL CYCLES</u> – We take a look at plants and animals and the changes that occur with each passing season. Consider visiting a natural area during two or more seasons to get a first-hand look at the changes in the visual landscape as well as the 'clues' left behind, indicating behavioral changes of the birds, mammals, amphibians and other animals.

SIMPLY SENSE-ATIONAL — We will help students explore the natural world with all their senses as we take you on a guided hike. Fun activities will also highlight wildlife's keen senses of hearing, sight, smells and touch.

THE GREEN SCENE- All About Plants -- Plant observation and investigation is a great way to take classroom knowledge to a new level. Learn ID techniques, interesting characteristics that help plants survive, water cycle and food chain connections and more. Edible and medicinal plants could also be added to the scope of this investigation.

<u>BIODIVERSITY 101</u> -- Illinois is so much more than just corn & soybeans! Learn about the vast variety of organisms and habitats here and how important this diversity is in enabling life to exist on the planet. Why is *loss of biodiversity* one of the most urgent environmental problems facing us today and how can we do anything to protect it?

<u>EARTH IS OUR HOME</u> -- Students become conscious of their roles as caretakers of this planet. A series of activities exhibit our impact on the earth and how we can make our home a better place for the people, plants, and animals that share it. Simple conservation work projects such as blue bird nest box improvements or monitoring, trail improvements, tree planting or prairie restoration can be a part of this unit, if you wish.

<u>WHAT'S UP IN YOUR WATERSHED?</u> -- Water is such an important element in our lives! Explore interactively, the concepts of watersheds, the water cycle, rainfall, run-off, ground water, transpiration, evaporation...and how humans affect it all. Water testing can also be a part of this unit. Monitoring equipment for both physical and chemical characteristics is available.

NOTE:

Besides the obvious science related focus, our environmental education programs can meet the curriculum needs of all areas, including but not exclusive to language arts, math, social studies and current events. These field trips also serve as great incentive trips, team building experiences and end-of-the-year "special days." They are positive rewarding experiences for the children, as well as fun and educational.

<u>ANOTHER NOTE:</u> Possible funding sources for these field trips may be available. Contact us for details.

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