SD CHILDREN & NATURE

Schoolyard Habitats and Gardens: Nature-based Learning Right Outside the Classroom

San Diego Children and Nature Collaborative, July 13, 2013

What is nature-based learning and why is it so effective?

Nature is an outdoor classroom where children experience science, math, language and group learning by observing, touching, listening, smelling, telling and doing. When children explore nature, they develop their curiosity and creativity, get a sense of place, and learn that they are part of something bigger than themselves. Through their experiences in nature, they become more passionate stewards of the natural world. And nature can be actively used to teach lessons in all subjects (language arts, science, math, art, physical education, counseling, and more).

Where are the nature classrooms?

Schoolyard gardens and habitats. Students can observe, learn about, and appreciate local nature every day, if it is part of the school campus. The new ***Schoolyard Habitat Project Guide*** outlines how to plan, design, install, maintain, and teach lessons in schoolyard habitats (132 pages, 2011), http://www.fws.gov/cno/pdf/HabitatGuideColor.pdf, and more local information about school gardens, schoolyard habitats, and lessons at http://www.mastergardenerssandiego.org/schools/schools.php .

Nearby nature. In San Diego, nature is adjacent to or near every school. Teachers, students and naturalist guides can walk ten minutes or less to their local canyons, parks and open spaces. Learn more from the ***Guidebook for Nearby Nature School Field Trips*** at http://www.sdchildrenandnature.org/attachments/SDCaN_NearbyNatureFieldTripGuide_18p_final_2011.pdf .

San Diego's diverse natural areas. These schoolyard and "nearby" experiences complement exploration in bus trips to the coast, shrublands, mountains, desert, and sixth-grade outdoor school.

What lessons can be taught in nature?

Science lessons. ***Exploring San Diego's Shrubland Habitats*** curriculum for fourth grade includes lessons on adaptation and non-native species, and color animal and plant cards for "food chain" activity. ***Exploring Our Urban Forests*** offers nature-based lessons to teach in the schoolyard, grades K-5. All posted at http://sdchildrenandnature.org/wp/education/resources-for-teachers/ .

Next Generation Science Standards include seven cross-cutting concepts that are clearly observed and learned in nature: 1. Patterns, 2. Cause and effect: Mechanism and explanation, 3. Scale, proportion, and quantity, 4. Systems and system models, 5. Energy and matter: Flows, cycles, and conservation, 6. Structure and function, and 7. Stability and change.

Language arts. Students can explore and then express the complex information, evidence, ideas, logic, and feelings they experience in nature. *Journaling in Nature*, from California Native Plant Society http://www.sdchildrenandnature.org/attachments/CNPS_NatureJournalCurriculum_57p_nov10.pdf

Motivation. "Research supports a correlation between practices such as experiential or place-based learning and academic achievement, higher test scores, improved behavior, problem solving, and higher-order thinking skills." At http://www.ecoliteracy.org/discover/why-it-matters-educators.

Invitation to work together with the San Diego Children and Nature Collaborative!

Locally, the Collaborative brings educators, ecologists, parents, community leaders, and others together to increase opportunities for children to learn in nature and play outdoors, in their everyday lives. Resources at website www.sdchildrenandnature.org.

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