

San Diego Children and Nature

January 13, 2017 meeting

Held at Center for Research on Math and Science Education, SDSU

Follow-up actions

Comments on the Quality Nature Education Rubric were incorporated, and it is now posted at http://sdchildrenandnature.org/wp/wp-content/uploads/2015/12/SDCaN_Education_QualityNatureRubric_30jan17.pdf. This guide has two primary learning objectives: (1) Develop “sense of place” and understand the importance of local nature, which focuses on Cross-cutting Concepts in the Next Generation Science Standards-NGSS; and (2) Investigate nature, which focuses on Science and Engineering Practices in NGSS.

For each of these, lessons and field trips can be evaluated relative to their contribution to three levels of nature-based learning: (1) Indirect experiences and awareness of nature; (2) Direct experiences in nature; and (3) Stewardship and/or action in nature.

(What is a rubric? According to Merriam-Webster, it is “a guide listing specific criteria for grading or scoring academic papers, projects, or tests.”)

Final revisions were made and logos added to the lesson packet, Plant Adaptations and Local Weather: Lessons in Schoolyards and on Field Trips, now posted

at http://sdchildrenandnature.org/wp/wp-content/uploads/2016/01/SDCaN_NGSS_PlantAdaptations_LessonsGr3_17feb17.pdf. The organizations (represented by the logos) support the alignment of nature-based learning to NGSS, encourage teachers to prepare students for field trips with school-based activities, and to extend field trips to the nature in student’s everyday lives. See the logos!



Notes from January 13, 2017 Meeting (sent out in email message to attendees)

From: Anne Fege <afege.sdchildrenandnature@aol.com>

Sent: Thu, Jan 19, 2017 10:55 am

Subject: SDCaN meeting on Jan. 13, notes and next steps, do you want LOGO on Gr 3 lessons?

Glad you joined us on January 13 for a San Diego Children and Nature (SDCaN) meeting focused on Nature- and NGSS-based Lessons. Thanks to Dr. Meredith Vaughn for (again!) an outstanding outline of NGSS elements relating to local natural habitats, and for offering future NGSS workshops. Twenty-three attended, and were marvelous co-teachers-learners in the workshop! Key points are summarized in this email message, with three key actions of NGSS workshops, promotion of local school nature programs, and coordinating at Watershed level. We look forward to working together more to enhance children's learning in and about nature!

Nature lesson **Rubric** has two elements =Develop sense of place and understand the importance of local nature, and Investigate nature. There are four levels = No evidence, Indirect experiences in nature; Direct experiences in nature; and Stewardship action.

Draft **lesson packet** was reviewed, "Plant Adaptations and Local Weather: Lessons in Schoolyards and Field Trips," at [Grade3 PlantAdaptations](#) This addresses NGSS standards 3-ESS2-2 and 3-LS4-3 (click on these standards at <http://ngss.nsta.org/AccessStandardsByTopic.aspx>). Please take time to review the draft, work with teachers to "pilot" the activities/lessons, and REPLY TO this message that you want your organization's logo on the front page. That will mean that your organization commits to the principles but not to reworking your programs at this time. The following would be written in the lesson packet: "These organizations support the alignment of nature-based learning to NGSS, encourage teachers to prepare students for field trips with school-based activities, and to extend field trips to the nature in student's everyday lives". [Any suggested edits to this text?]

The group shared ideas about NGSS, the rubric, promotion, and barriers to nature-based learning (see list below). From this, **three realistic approaches** were identified, for the next several months:

- Offer additional **NGSS workshops** on nature-based learning alignment, to support grade-level emphasis and local field opportunities
- **Promote local resources on webpages** <http://sdchildrenandnature.org/wp/>
- Encourage **coordination at watershed scale**, as part of outdoor learning at schoolyard, nearby nature, and field trips within community/watershed

Notes on discussions about **nature-based learning in NGSS elements**: Connect lessons to health and wildlife. Encourage field trips within watersheds that schools are located in; nature organizations work together to offer integrated and successional activities. Use more technology to connect students to the outdoors, including visualizations, citizen science

Rubric for nature-based experiences: Features the head, heart and hands. Connects students to their spirit, sense of place. Nature centers can serve as nature and community gathering places (Tecolote Nature Center, Volcan Mountain).

Promotion of school programs: Connect classroom activities with field trips (as complimentary learning).

Connect directly with science/curriculum staff in school districts, with information to incorporate into NGSS professional development, and to share field trip and other opportunities.

Work with not-in-school/after school providers who seek STEM-related opportunities.
Start or support “clubs” (Club Wild, garden clubs, Roots and Shoots)
Invest in advocacy with school boards and districts, to get students outdoors, give outdoor program access to all, and provide funds for transportation to field trips
Expand nature/outdoor information on social media (see Facebook page), add QR codes to materials, increase use of technology outdoors, offer short videos (see www.jimkarnikfilms.com)
Use stories and spokespersons for media opportunities

Worries/barriers:

Incorporate evaluation processes to measure effectiveness and impacts
Some organizations are less receptive to working together, some have strong “ownership” of their sites/programs
Children in many schools/communities do not have access to outdoor learning and field trips
NGSS lesson activities/packets have not been tested by teachers and revised
The SD Foundation “Opening the Outdoors” grant program seeks collaborative approaches; deadline is March 1
Some docents are not yet trained in NGSS elements

Where do we go from here? suggestions offered, at end of meeting:

Get organizations together within watersheds
Get more outdoor apps to teachers
Set up some committees; visit other sites
Diversify voices from south and east San Diego;
Make lessons plans focused on animals
Set up evaluations for lessons
Share ideas that increase teachers’ confidence in taking students outdoors
Invite classes/schools to make repeat visits to nature place
Appreciate time to be together with others working on quality nature experiences

Upcoming Events: Love your Wetlands Day, Saturday, February 4, <http://www.sandiegoaudubon.org/events/service-projects/618-love-your-wetlands-day>, Family day at SD Bird Festival, Sunday February 26, <http://www.sandiegoaudubon.org/family-day>, and Nature Play at EarthFair, <http://earthdayweb.org/EarthFair.html>

/s/ Anne Fege

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Children are healthier, happier and smarter when they learn in nature and play outdoors!