

Connecting People to Nature: Reflection and Application



Sparking innovation in
environmental education



This worksheet accompanies a webinar held on March 21, 2019 as part of the eeINSPIRE webinar series presented by the North American Association for Environmental Education (NAAEE) and the US Forest Service. [Watch the recorded webinar here.](#)

Use this worksheet to reflect on the presented material and think about how you might apply it to your work as an educator.

PROGRAM OPPORTUNITIES AND CHALLENGES

Research indicates that a sense of connection with nature has different dimensions. It has an emotional side of love or attraction and a sense of belonging or oneness with nature. It involves positive experiences like enjoyment, comfort, and calm in nature. And it involves understanding our human interdependence with nature. Some people argue that behaviors to protect the natural world are an integral part of nature connection and others see pro-environmental behaviors as outcomes that flow from feeling connected to nature. Either way, there is agreement that feelings of nature connection and pro-environmental behaviors are linked.

1. Does your program enable people to engage with all of these dimensions of nature connection? If so, what strategies are you using?

PROGRAM OPPORTUNITIES AND CHALLENGES CONTINUED

2. How could you increase opportunities for people to experience some aspects of nature connection in your program?
 - a. What could you add to your program?
 - b. If your mission emphasizes one aspect of connecting with nature, could you form partnerships with other local nature-based programs so that people can have a variety of experiences at different places that deepen their connection with nature?

How can you build relationships with visitors that only attend your program once or very occasionally?

What are some of the ways that you have engaged the community in creating programming that reflects their cultural values?

What ways can you further your program's professional development around developmentally appropriate practices?

RESEARCH-BASED STRATEGIES & PRACTICES

Research shows that some experiences (such as providing learners with specific direction using scents, textures, and activities; allowing time for reflection; and helping participants see themselves as part of nature) are more effective than others in building a sense of connection with nature. Are you familiar with the research? If yes, how can you adapt your programs to be more in line with research findings? If no, how could you find out more about the most promising practices?

Think about a specific program you manage or facilitate that connects people to nature. Write a SMART objective for your program related to improving how you connect your audiences to nature.



EVALUATING CONNECTIONS TO NATURE

What tools or strategies do you use to measure your audiences' connection to nature? For example, you might be assessing your audiences' attitudes toward nature, or detecting differences in these attitudes before and after participating in your programs.

What are the biggest barriers you face evaluating your audiences' connection to nature?

Think about a specific program you manage or facilitate that connects people to nature, and identify one or two new strategies you could use to assess if and how your program is connecting people to nature. For example, if you struggle to get your audience to fill out paper surveys following an outdoor educational experience, are there any opportunities for you or other staff to make strategic observations, or ask the audience exploratory questions throughout the program that can help you understand their connection to nature and if it changes from start to finish?

RESEARCH REFERENCES, RESOURCES, AND ADDITIONAL READING

Interested in joining an online community to connect with environmental education professionals around the world, find and share resources, engage in discussions on key topics, and access other professional development opportunities? [eePRO](#) is NAAEE's one-stop shop for environmental education professionals. Anyone can join eePRO, and by joining, you gain access to job opportunities, webinars, online courses, workshops, and a variety of resources. You can also post resources, events, jobs, and other happenings that you want others to know about.

You can also join [eePRO special interest groups](#) to discuss key issues related to all things environmental education. Whether you want to gather evidence of the benefits of connecting to nature, discuss methods for fostering a connection with nature among key audiences, or simply share stories of how a connection with nature has improved your life or the lives of those you love, the [Connecting to Nature group](#) is a great place to discuss what fuels your passion the most—a restorative and meaningful connection to nature. Joining the group is easy and free for anyone – [create an eePROfile](#) and head over to the [Connecting to Nature group](#) to get started.

Introductory resources to the literature on nature connection

(compiled by Louise Chawla)

A steep increase in research publications on nature connection since 2010

Ives, C. D., Giusti, M., Fischer, J., Abson, D. J., Klaniacki, K., Dorninger, C., ...& von Wehrden, H. (2017). Human-nature connection: A multidisciplinary review. *Current Opinion in Environmental Sustainability*, 26-27:106-113.

Nature connection is multidimensional

Tam, K-P. (2013). Concepts and measures related to connection to nature. *Journal of Environmental Psychology*, 34:64-78.

Zylstra, M. J., Esler, K. J., Knight, A. T. & Le Grange, L. L. (2014). Connectedness as a core conservation concern: An interdisciplinary review of theory and a call for practice. *Springer Science Reviews*, 2:119-143.

Nature connection and conservation behaviors are highly linked

Collado, S., Staats, H., & Corraliza, A. (2013). Experiencing nature in children's summer camps: Affective, cognitive and behavioural consequences. *Journal of Environmental Psychology*, 33: 37-44.

Kals, E., Schumacher, D., & Montada, L. (1999). Emotional affinity toward nature as a motivational basis to protect nature. *Environment and Behavior*, 31:178-202.

Mayer, F. S. & Frantz, M. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature. *Journal of Environmental Psychology*, 24:503-515.

Müller, M. M. , Kals, E., & Pansa, R. (2009). Adolescents' emotional affinity toward nature. *Journal of Developmental Processes*, 4(1):59-69.

Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2008). The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and Behavior*, 41:715-740.

Perkins, H. E. (2010). Measuring love and care for nature. *Journal of Environmental Psychology*, 30:455-463.

How nature connection forms

Cheng, J. C-H,. & Monroe, M. (2012). Connection to nature: Children's affective attitude toward nature. *Environment and Behavior*, 44(1):31-49.

Cleary, A., Fielding, K. S., Murray, Z., & Roiko, A. (2018). Predictors of nature connection among urban residents: Assessing the role of childhood and adult nature experiences. *Environment and Behavior*, 1-32. DOI: 10.1177/0013916518811431

Giusti, M., Barthel, S. & Lars, M. (2014). Nature routines and affinity with the biosphere. *Children, Youth and Environments*, 24(3):16-42.

Kals, E., Schumacher, D., & Montada, L. (1999). Emotional affinity toward nature as a motivational basis to protect nature. *Environment and Behavior*, 31:178-202.

Larson, L. R., Green, G. T., & Castleberry, S. B. (2011). Construction and validation of an instrument to measure environmental orientations in a diverse group of children. *Environment and Behavior*, 43(1):72-89.

Experiences that encourage nature connection

Barthel, S., Belton, S., Raymond, C., & Giusti, M. (2018). Fostering children's connection to nature through authentic situations: The case of saving salamanders at school. *Frontiers in Psychology* (June). DOI: 10.3389/fpsyg.2018.00928.

Braun, T., & Dierkes, P. (2017). Connecting students to nature—how intensity of nature experience and student age influence the success of outdoor education programs. *Environmental Education Research*, 23:937-949.

Bruni, C. M., Winter, P. L., Schultz, P. W., Omoto, A. M., & Tabanico, J. J. (2017). Getting to know nature: Evaluating the effects of the Get to Know Program on children's connectedness to nature. *Environmental Education Research*, 23(1): 43-62.

Cho, Y., & Lee, D. (2018). 'Love honey, hate honey bees': Reviving biophilia in elementary school students through environmental education program. *Environmental Education Research*, 24:445-460.

Liefländer, A. K., Fröhlich, G., Bogner, F. X., & Schultz, P. W. (2013). Promoting connectedness with nature through environmental education. *Environmental Education Research*, 19(3): 370-384.

Theimer, S., & Ernst, J. (2012). Fostering connection to nature through U.S. Fish & Wildlife service education and outreach programming: A qualitative evaluation. *Applied Environmental Education and Communication*, 11(2): 79-87.

Nature-Based Learning in Early Childhood Resources

(compiled by Sheila Williams-Ridge)

- Natural Wonders: A Guide to Early Childhood Environmental Education: <http://seek.minnesotae.org/sites/default/files/naturalwonders.pdf>
- MNECO: <https://www.facebook.com/MNEarlyChildhoodOutdoorLearningNetwork>
- Redleaf Press nature-focused books: <https://www.redleafpress.org/Search.aspx?k=nature>
- Natural Start Alliance <https://naturalstart.org>
- Angela Hanscom TED talk <https://www.youtube.com/watch?v=PXLaoDucF0k>
- Children and Nature Network <https://www.childrenandnature.org>
- Natural Learning Initiative <https://naturalearning.org>
- National Wildlife Federation <https://www.nwf.org/Educational-Resources/Educator-Tools>
- Forest Kindergarten www.Forestkinder.org
- Schools Out, Lessons from a Forest Kindergarten <http://www.schoolsoutfilm.com>
- The Land Documentary <http://playfreemovie.com>
- Project Learning Tree, Project Wild, Project Wet
 - <https://www.dnr.state.mn.us/projectwild/index.html>
 - <https://www.dnr.state.mn.us/projectwet/index.html>
 - <https://www.dnr.state.mn.us/plr/index.html>
- Eating Snow: <https://www.npr.org/sections/thesalt/2016/01/23/463959512/so-you-want-to-eat-snow-is-it-safe-we-asked-scientists>

- ECEE
Guidelines: https://cdn.naaee.org/sites/default/files/final_ecee_guidelines_from_chromographics_lo_res.pdf
- Temperature Safety: <https://www.weather.gov/safety/cold-wind-chill-chart> and <https://www.weather.gov/safety/heat-index>

Art & Nature Resources

(compiled by Sheila Williams-Ridge)

- Educating the Heart Through Nature
Art <http://educatingheartnatureart.com/program/>
- Connecting Children to Art in
Nature <http://www.connectingchildrentoartinnature.com/>
- Preschoolers as Eco-
Artists <https://www.naeyc.org/resources/pubs/tyc/apr2015/preschoolers-eco-artists>
- Creativity and Culture
Partnership <https://www.culturepartnership.eu/en/article/nature-and-art>

ABOUT THE EEINSPIRE WEBINAR SERIES

eeINSPIRE: Sparking Innovation in Environmental Education

NAAEE and the US Forest Service are pleased to introduce eeINSPIRE—a new webinar series designed specifically to offer new ideas and thinking for USFS conservation educators, who provide the public with high quality environmental education programs across the country and around the world.

UPCOMING EEINSPIRE WEBINARS

April 17, 3:00-4:00 ET “Inspiring Conservation Action”

This webinar will take a deep dive into NAAEE’s *Toolkit for Engaging People in Conservation Action* and will discuss how to plan a conservation education program, inspire a conservation ethic, and increase the impact of behavior change efforts. Speakers: Nicole Ardoin (Stanford University) and Judy Braus (NAAEE)

Additional topics will include: new approaches to fostering collaborations and engaging communities, increasing civic engagement through education and service learning, becoming a natural and effective storyteller, citizen science in education, building a diverse and inclusive field, and more.

We look forward to seeing you online! Stay tuned to this webpage for updates on future webinars: <https://naaee.org/eeopro/learning/monthly-webinar-series>.

