Designing tools from scratch can be tough and even a bit daunting. Thankfully, many experts and practitioners have developed, tested and refined data collection tools that can be used for evaluation in environmental education. This next section provides resources and information about many data collection tools that are available to the public.

Now that you've developed your evaluation plan, look through the resources by outcome area to see if there are any tools that could assist you with your evaluation.

The following icons are used throughout to denote the appropriate age group for each tool:

- Ages 6 and older
- Ages 11 and older
Conservation

All Colorado ecosystems are healthy, vibrant, and valued.

Programs with conservation outcomes include those that increase environmental knowledge, improve environmental awareness and attitudes, and inspire positive environmental actions that lead to improvements in environmental quality.

Population-Level Outcomes

- Increase in connection to nature across all of Colorado’s demographics
- Increase in environmental behaviors.
- Increase in quality: water, air, and soil.

Program-Level Outcomes

- Increase in connection to nature.
- Increase in stewardship actions.
- Increase in desire to participate in positive environmental actions.
- Increase in positive attitudes toward nature and environment.
- Increase in awareness and knowledge of cultural, biological, and scientific systems.
Tools for Conservation

The following list of resources can be a starting place for environmental educators to identify tools or questions that can help gather data about program-level outcomes related to conservation. Please visit each webpage or resource for more information and details.

**Practitioner Guide to Assessing Connection to Nature**  
by Gabby Salazar, Kristen Kunkle and Martha Monroe

This comprehensive guide, which contains 11 tools and approaches, is designed for practitioners in environmental education. It helps organizations choose the right tool to assess and measure their audiences' connection to nature.

To access the full guide, visit:  

**EE21 Tools and Guidance**  
by Robert B. Powell and Marc J. Stern

This survey is geared for students aged 11 and up and measures multiple outcomes in environmental education. This tool has questions focused on place connection, environmental stewardship, environmental attitudes, and more.

To access detailed information about the tool, visit:  
https://frec.vt.edu/people/Stern/stern_docs.html

**Focus Group Protocol for CAEE**  
by CAEE

This focus group protocol was created by CAEE to support its AmeriCorps program. This tool incorporates example questions that can be used for four of the Colorado Collective Outcomes.

To access this protocol, visit:  
https://tinyurl.com/2wk8dv6p

**Colorado Collective Outcomes Survey Menu**  
by CAEE

This tool provides a menu of questions tailored toward four of the Colorado Collective Outcomes, and can be used with students of all ages.

To access this tool, visit:  
https://tinyurl.com/mr3vrt9f
Environmental education supports and ensures all PreK-12 students are lifelong learners with successful school outcomes.

Programs with education outcomes include those that improve academic performance, increase E-STEAM literacy, improve standardized test scores, and expand school engagement using the environment as an integrating context.

**Population-Level Outcomes**

- Increase in schools with EE.
- Increase in students’ level of engagement in learning (attendance and referrals).
- Increase in academic testing scores.
- Increase in students enrolled in NR/ENVS degree program.

**Program-Level Outcomes**

- Increase in understanding of EE program content.
- Increase in engagement in learning.
- Increase in time spent on EE in the classroom and outdoors.
- Increase in culturally relevant curriculum.
- Increase in professional development in environmental education.
- Increase in workforce readiness skills.
The following list of resources can be a starting place for environmental educators to identify tools or questions that can help gather data about program-level outcomes related to education. Please visit each webpage or resource for more information and details.

**EE21 Tools and Guidance**  
by Robert B. Powell and Marc J. Stern

In addition to outcomes related to conservation, this tool measures understanding of EE content as well as engagement in learning and school.

To access detailed information about the tool, visit:  
https://frec.vt.edu/people/Stern/stern_docs.html

**Cornell Lab of Ornithology, Citizen Science, Tools for Measuring Outcomes**

The project team at the Cornell Lab of Ornithology created a toolkit of resources and data collection tools to measure outcomes such as interest, motivation, self-efficacy and skills. The following tools can be used to measure outcomes in education:

- **Interest in Science and Nature**
- **Self-Efficacy for Environmental Action Scale**
- **Self-Efficacy for Learning and Doing Citizen Science Scale**

The tools are available for free and instant download by completing a brief request form at the project’s website:  
https://www.birds.cornell.edu/citizenscience/measuring-outcomes/

**Focus Group Protocol for CAEE**  
by CAEE

See Conservation section for description. To access this protocol, visit:  
https://tinyurl.com/2wk8dv6p

**Colorado Collective Outcomes Survey Menu**  
by CAEE

See Conservation section for description. To access this tool, visit:  
https://tinyurl.com/mr3vrt9f
Positive Child and Youth Development

All Colorado children and youth grow into responsible, resilient, engaged citizens that care for themselves, their natural environment, and their communities.

Programs with youth development outcomes are aimed at guiding young people as they grow into responsible, engaged citizens that care for the environment and their communities. These outcomes may be achieved through strengths-based programs focused on character and leadership combined with outdoor experiences or community service.

Population-Level Outcomes

- Increase in opportunities for civic or community engagement.
- Increase in programs that support PYD Components: Competence, Confidence, Character, Caring, Connection, Contribution.
- Increase in opportunities that provide a continuum of experience between organizations, partnerships, and other collaborations.

Program-Level Outcomes

- Increase in civic and community engagement.
- Increase in understanding of healthy and unhealthy risk.
- Increase in critical thinking/problem solving skills.
- Increase in self-efficacy.
- Increase in participants’ competence, confidence, character, caring, connection or contribution.
- Increase in youth-directed internships, mentors, authentic adult and peer relationships.
Tools for Positive Child and Youth Development

The following list of resources can be a starting place for environmental educators to identify tools or questions that can help gather data about program-level outcomes related to positive youth development. Please visit each webpage or resource for more information and details.

**EE21 Tools and Guidance**
by Robert B. Powell and Marc J. Stern

In addition to outcomes previously noted, this tool measures 21st Century Skills, self-identity and self-efficacy. (See Education section for link.)

**Toolkit for Evaluating Positive Youth Development**
by The Colorado Trust

This comprehensive toolkit, developed for after-school programs, measures several PYD outcomes including community involvement, positive core values and sense of self.

To access the full toolkit, visit: https://www.coloradotrust.org/wp-content/uploads/2015/05/ASIToolkitJun04.pdf

**Positive Youth Development Student Questionnaire Short Version**
from 4-H Study of PYD by Richard Lerner et al.

This student questionnaire measures the 5 C’s (Competence, Connection, Confidence, Caring and Character), developed by Richard Lerner and colleagues as part of the 4-H Study of Positive Youth Development.

To access the tool, visit: https://tinyurl.com/2mxeybcd

**Focus Group Protocol for CAEE**
by CAEE

See Conservation section for description and link.

**Colorado Collective Outcomes Survey Menu**
by CAEE

See Conservation section for description and link.
Health and Wellness

Through increased safe access, connection to and comfort in the natural environment, all Coloradans are healthy and well—physically, mentally, and emotionally.

Programs with health and wellness outcomes are focused on improving physical, mental, emotional, and social health and wellness for participants through connection with nature. Health outcomes include improving nutrition, increasing physical fitness, reducing stress and anxiety, recovering from physical or psychological trauma, and increasing awareness and understanding of personal and environmental health.

**Population-Level Outcomes**

- Increase in time in nature.
- Decrease in systemic barriers to accessing nature.
- Increase in understanding of the connection between healthy environment and healthy self.
- Improved physical, mental and emotional health.
- Decrease in stress, depression, fatigue, sedentary lifestyle and chronic illness.
- Increase in access to healthy nutrition.

**Program-Level Outcomes**

- Increase in time spent in nature.
- Decrease in barriers to accessing nature.
- Increase in comfort and enjoyment to explore outdoor spaces.
- Increase in self-agency in the outdoors.
- Decrease in fear, anxiety, unknown.
- Increase in sense of place and place connection.
- Increase in perceived wellness and health as result of being in outdoors.
- Increase in outdoor community-based health interventions.
The following list of resources can be a starting place for environmental educators to identify tools or questions that can help gather data about program-level outcomes related to health and wellness. Please visit each webpage or resource for more information and details.

**The People and Nature Survey**  
by Natural England  
The People and Nature Survey for England gathers data through an online survey relating to people’s enjoyment, access, understanding of and attitudes to the natural environment, and it’s contributions to wellbeing. It builds off the Monitor of Engagement with the Natural Environment (MENE) survey, which ran for over a decade.

To visit the tools for adults and children, visit:  
https://publications.naturalengland.org.uk/publication/6382837173583872

**British Children’s Play Scale**  
This survey assesses children’s wellbeing and play, particularly in outdoor settings. More information about the tool and the results can be found here: Children’s Play and Independent Mobility in 2020: Results from the British Children’s Play Survey by Helen Dodd: https://doi.org/10.3390/ijerph18084334

To access a copy of the tool, visit:  
https://tinyurl.com/389pe484

**Practitioner Guide to Assessing Connection to Nature**  
by Gabby Salazar, Kristen Kunkle and Martha Monroe  
In addition to measuring connection to nature, several tools included with this guide have questions to help understand participant’s wellbeing.

To access the full guide, visit:  

**Focus Group Protocol for CAEE**  
by CAEE  
See Conservation section for description and link.

**Colorado Collective Outcomes Survey Menu**  
by CAEE  
See Conservation section for description and link.
Social Justice

All Coloradans have access to and opportunity to experience the outdoors.

Programs with social justice outcomes include those that increase access and opportunity for underserved communities and underrepresented populations. These outcomes include increasing access to outdoor experiences, improving urban green space, and developing and supporting environmental educators and leaders from traditionally underrepresented groups.

 Population-Level Outcomes

- Increase in communities with access to safe, natural and healthy environments.
- Increase in Coloradans who feel welcomed and comfortable in outdoor spaces.
- Decrease in barriers to accessing nature.
- Use of outdoor spaces reflects demographics of community.
- Increase in commitment to DEI within organizations.

 Program-Level Outcomes

- Increase in participants who feel welcome and comfortable in outdoor spaces.
- Increase in programs honoring diversity in outdoor spaces.
- Increase in diversity of organizational leadership, program staff and mentors.
- Increase in DEI training for staff.
- Increase in culturally aware and responsive programming.
- Improved access to outdoor spaces for all abilities.
Tools for Social Justice

The following list of resources can be a starting place for environmental educators to reflect on their internal practices as they related to social justice outcomes. Please visit this resource for more information and details.

**Self-Evaluation Tools**
by Oregon State University Extension Services Outdoor School Program.

Oregon State University Extension Service created a series of self-evaluation tools to support Oregon’s Outdoor School. The goal of these tools is to support programs in moving through the evaluation cycle, which includes: 1) Evaluating current policies and practices; 2) Reflecting, learning, and planning for change; and 3) Implementing changes to make programs more equitable, accessible, and culturally responsive.

While components of these self-evaluations may reflect specific criteria for Oregon programs, we believe all organizations can benefit from the authentic reflection, learning and action that can be facilitated by using these tools. By engaging in internal reflection and developing a strategic improvement plan, Colorado organizations can make progress toward achieving the Social Justice population-level and program-level outcomes.

**Recommended tools:**
Culturally Responsive Self-Evaluation Tool
Special Education and Accessibility Self-Evaluation Tool

To access the tools and additional information, visit: [https://outdoorschool.oregonstate.edu/about-us/research-evaluation-assessment/self-evaluation-tools/](https://outdoorschool.oregonstate.edu/about-us/research-evaluation-assessment/self-evaluation-tools/)
**Additional Resources**

**Websites for Tools**


British Children's Play Scale
Children's Play and Independent Mobility in 2020: Results from the British Children's Play Survey by Helen Dodd: https://doi.org/10.3390/ijerph18084334
To access a copy of the tool, visit: https://osf.io/637rd/?view_only=e11a2e1accd843c59cecb3a54fc7767e or https://tinyurl.com/389pe484

Colorado Collective Outcomes Survey Menu by CAEE: https://tinyurl.com/mr3vrt9f

Cornell Lab of Ornithology, Citizen Science, Tools for Measuring Outcomes and Evaluating Citizen Science. The scales are available for free and instant download by completing a brief request form at the following website: https://www.birds.cornell.edu/citizenscience/measuring-outcomes/

EE21 Tools and Guidance by Robert B. Powell and Marc J. Stern: https://frec.vt.edu/people/Stern/stern_docs.html

Focus Group Protocol for CAEE by CAEE: https://tinyurl.com/2wk8dv6p

Positive Youth Development Student Questionnaire by Richard Lerner et al.: https://cyfar.org/sites/default/files/Positive%20youth%20development%20student%20short%20(10%20yrs%20and%20older)_0.pdf or https://tinyurl.com/2mxeybcd


Additional Resources and References


**Additional Resources and References**


