

HIGH SCHOOL (GRADES 9-12)

BOULDER COUNTY ENVIRONMENTAL EDUCATION GUIDELINES DEVELOPED BY THE BOULDER COUNTY E MOVEMENT

High School (Grades 9-12) Learning Objectives

We want our students to be inspired to be life-long learners, stewards, and enthusiasts of the natural world. We want to prepare them to make informed decisions that consider the economic, social and environmental impacts of issues by using credible evidence.





High School (Grades 9-12) Environmental Education Guidelines

Progression of place: The scale expands from the schoolyard into a local natural area (greenbelt, stream, field) and into larger contexts (regional, state, national, global) with multiple encounters with/in an expanded place over time.

NATURAL CONCEPT

Sustainability involves a complex interaction of social, economic, ecological, and political systems.

SOCIAL CONCEPT

Individual and collective action can have implications for sustainability at both the local and global scale.

The Guidelines

Head

ACADEMIC SKILLS AND KNOWLEDGE

- World events and global issues are complex and interdependent.
 [CAS: Nature of Skills and History related to SS.HS.1.2 and SS.HS.1.3]
 [NGSS: HS-ETS1-1]
- One's own culture and history is key to understanding one's relationship to others.
 [CAS: Nature of Skills and History related to SS.HS.1.2 and SS.HS.1.3]
- Multiple conditions fundamentally affect diverse global forces, events, conditions, and issues.

[CAS: Nature of Skills and Geography related to SS.HS.2.2]

[NGSS: HS-ETS1-1]



- The current world system is shaped by historical forces.
 [CAS: Nature of Skills and Geography related to SS.HS.2.2]
- When evaluating solutions, it is important to take into account a range of constraints including cost, safety, reliability, and aesthetics and to consider social, cultural, and environmental impacts.



Heart

SOCIAL-EMOTIONAL LEARNING, AFFECTIVE NEEDS, SENSITIVITY, ATTITUDES AND SELF-EFFICACY

- Allow for appreciative inquiry—students have the time and space to notice what is interesting and curious to them in local and urban natural areas, and in wilderness.
- Ask and record questions about what draws the students' attention, and create space for students to find their own answers.
- Make time for and model awareness and observation during time outdoors including recording observations, quiet, and reflection (goal: make this part of your routine with consistency and increased frequency).
- Promote openness to new opportunities, ideas, and ways of thinking.

- Foster value for multiple perspectives, including those that are different or opposed.
- Develop self-awareness about identity and culture with sensitivity and respect for differences.
- Create opportunities for older students to mentor younger students.
- · Question prevailing assumptions.
- · Model and identify empathy and humility.
- · Foster self-awareness about identity and culture with sensitivity and respect for differences.



Hands

ACTION AND SERVICE

- in unstructured time outdoors.
- participatory role in decisions made regarding their community, including policy, design, and improvements.
- Students translate ideas, concerns, and findings into appropriate and responsible individual or collaborative actions to improve conditions.
- Students establish need for service-learning projects, and envision, design, and implement those projects.

- Mentor and participate with younger students
 Students adopt shared responsibility and take cooperative action.
- Foster place-making abilities—students have a Students seek out and apply understanding of different perspectives to problem-solving and decision-making.
 - Create opportunities for individual students to apprentice or volunteer for local professionals in fields related to sustainability (for example, trail maintenance crew, assistant in educational program, photography, bird count).



Feet

CONNECTION TO PLACE

- Explore the local, regional, and national communities in the context of the global scale. Build appreciation for the connections of natural and built aspects of the community,

 • Create opportunities for students to choose region, nation, and world.
- Understand that our natural and cultural communities extend to the global scale.
- Organize field trips that get students outside the classroom to see something from a new perspective.
- Provide multiple encounters with an expanded place over time.

- Experience a variety of natural environments on a broadening scale (local to regional to national to global).
- outdoor recreation experiences including backpacking, hiking, rafting, kayaking, paddleboarding and/or opportunities for students to choose outdoor experiences in ecology, botany, entomology, ornithology, etc.
- Explore nature in connected green spaces, open spaces, and parks in both wilderness areas and in urban areas.









Recommended Activities

Activities listed are intended to provide inspiration for how to connect to a local natural area, or plan a field trip with a partner organization.

- natural areas, or breaks under the trees on school grounds before or after test taking, high-pressure events, or as a regular part of the weekly schedule.
- Research a political issue or proposed political action in sustainability that cuts across social, economic, and ecological systems, and analyze the pros and cons. [CAS: SC.HS.ESS.12]
- Connect with sustainability efforts in another country, develop a culturally proficient understanding of the issue and context, and seek appropriate ways to support efforts.

[CAS: SC.HS.ESS.11] [NGSS: HS-ESS3-5]

• Participate in a debate representing diverse stakeholders in a contentious issue. Hold a mock debate and assign stakeholder roles to students to research and represent.

- Plan for short walks through Partner with an elementary school to implement a school garden or natural area.
 - Raise fish in the classroom.
 - Engage in Citizen Science
 - Care for living things or natural areas.
 - Take action to make a positive impact or solve a problem.

[NGSS: HS-LS4-6]

- Assess and evaluate current human impacts. [NGSS: HS-LS2-7]
- Experience a variety of natural environments.
- Work with local professionals (ex: scientists or business owners) to create opportunties for collaboration and mentorship.