



GUIDELINES

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

3RD GRADE

3rd Grade Learning Objectives

We want our students to be inspired to understand that there is interdependence among animals, humans, and their environment. We want to facilitate opportunities for them to identify how problems arise when environments change, and to work with their peers to solve problems and answer questions.



3rd Grade Environmental Education Guidelines

Progression of place: The appropriate scale is neighborhood community within the watershed and regional environment.

NATURAL CONCEPT

Cycles and change are important processes in nature (life cycles, rock cycle, water cycle).

SOCIAL CONCEPT

Geographic tools can be used to understand our region's watershed (mapping).

The Guidelines

Head

ACADEMIC SKILLS AND KNOWLEDGE

- Physical and behavioral adaptations of living things affect their ability to survive, reproduce, and adapt to changes in the environment.
- Structures in animals and plants serve functions of growth, survival, behavior, and reproduction.
- Earth's materials can be broken down and/or combined into different materials such as rocks, minerals, soil, and sand—some of which are usable resources for human activity.
- Scientists record patterns of the weather across different times and areas so that they can make predictions about what kind of weather might happen next. (3-ESS2-1)
- Cause and effect relationships are routinely identified, tested, and used to explain change. (3-ESS3-1)
- Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years. (3-ESS2-2)
- A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts. (3-ESS3-1)
- Observable phenomena exist from very short to very long time periods. (3-LS4-1)





The Guidelines *(continued)*



Heart

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

- Nurture care and respect for living things and natural areas.
- 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 play, quiet time, and reflection (goal: make this part of your routine with consistency and increased frequency).
- Build community and interpersonal skills like active listening within the classroom.
- Work productively and collaboratively, both independently and as a member of a small group or team. Identify clear purpose for group/team work and outcomes.
- Discuss feelings and connections that students have and make when they are outside. Model self-reflection.
- Learn to rely on ourselves and on each other.
- Model and identify empathy and humility.
- Foster openness to new opportunities, ideas, and ways of thinking.
- Learn how to disagree.



Hands

ACTION AND SERVICE

- Create time for cooperative and social play in natural settings.
- Support a classmate—promote acts of kindness.
- Define more complex problems, based on evidence, in the school.
- Take action to make a positive impact or solve a problem in the school.
- Allow for place-making opportunities for students to design and have a voice in the school community.



Feet

CONNECTION TO PLACE

- Build appreciation of, and familiarity with, surroundings—natural and built, including wildlife, people, plants, and neighborhood structures (streets, buildings).
- Develop understanding of our natural and cultural communities that extend from the school community to the local scale.
- Organize field trips that get students outside the classroom to see something from a new perspective.
- Allow for multiple encounters with an expanded place over time.
- Provide outdoor opportunities for students to be adventurous, imaginative, and quiet, both with and without academic tasks to accomplish.
- Encourage exploration of nature in connected green spaces, open spaces, and parks.
- Begin to expand from the schoolyard into a local natural area (greenbelt, stream, field or partner field trip).



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.

- Provide for self-guided time outside daily - make this a regular part of your daily schedule.
- Take walks through the schoolyard or neighboring areas (naturalized or not) to record changes over time and questions about observations. SS09-GR.4-S.2-GLE1
- Explore a local natural habitat to identify flora, fauna, and signs of wildlife.
- Engage in gardening and habitat improvement.
- Compare/contrast regional animal/ecosystems communities to human communities. SS09-GR.3-S.2-GLE2
- Conduct seasonal comparisons of local natural/human environments and the activities of wildlife and people in the community.
- Follow the life cycle of a common product (i.e., paper, plastic, aluminum) from manufacturing to use to recycling and visit a recycling/waste management facility SC09-GR.3-S.3-GLE1
- Observe the life cycles of classroom animals and plants including ladybugs, painted lady butterflies, silk moths, meal worms, and Wisconsin Fast Plants (rapid radish/brassica). SC09-GR.3-S.2-GLE1
- Participate in a Citizen Science program.
- Provide opportunities to transfer skills learned in one context to new lessons or investigations (ex. use of tools like the hand lens - practice use indoors, then take outside to investigate) SS09-GR.3-S.2-GLE1, SS09-GR.4-S.2-GLE1



E Guidelines Adoption Form

ECE-5th Grade

INTENTIONS AT THIS GRADE LEVEL:

Each teacher, grade-level team or department adopting these guidelines should complete the following with their intended activities for the year. Your actual activities may shift or expand as the year progresses. These activities may be field-based or classroom-based as appropriate. The recommended activities and resources may be used to complete this intended plan.

We will spend _____ minutes outside each week.

We will visit the following natural outdoor space(s):

As a result of adopting these guidelines, one thing we intend to change about our practice is:

Initial thoughts about opportunities to integrate heart, hands, feet and head (see recommended activities at the end of your grade level chapter). Please list one or more thoughts in each space.

Opportunities to focus on Heart: _____

Opportunities to focus on Hands: _____

Opportunities to focus on Feet: _____

Opportunities to focus on Head: _____

Continuum of the E Guidelines

ECE/Kindergarten

We nurture our students' curiosity while fostering respect for the natural world and for each other. We help improve their basic understandings of nature and their relationships to it. We teach our students that they can influence their environments and their communities by the way they choose to care for themselves, for others and for natural places.

NATURAL CONCEPTS

The natural world is made up of living and non-living things that can be described and categorized.

SOCIAL CONCEPTS

Sequences of events and places or locations can be documented and described.

PROGRESSION OF PLACE

The appropriate scale is classroom community and home, school or schoolyard settings.

1st Grade

We nurture our students' curiosity while fostering respect for the natural world and for each other. We help improve their basic understandings of nature and their relationships to it. We teach our students that they can influence their environments and their communities by the way they choose to care for themselves, for others and for natural places. Describe and categorize; Cause and effect; Empathy

NATURAL CONCEPTS

The natural world is made up of living and non-living things that can be described and categorized.

SOCIAL CONCEPTS

Sequences of events and places or locations can be documented and described.

PROGRESSION OF PLACE

The appropriate scale is classroom community and home, school or schoolyard settings.

2nd Grade

We nurture our students' curiosity while fostering respect for the natural world and for each other. We help improve their basic understandings of nature and their relationships to it. We teach our students that they can influence their environments and their communities by the way they choose to care for themselves, for others and for natural places. All living things, plants, animals (including humans) meet needs from the environment and humans must make choices about how needs are met.



GUIDELINES

NATURAL CONCEPTS

Living things, including humans, meet their needs from their environments.

SOCIAL CONCEPTS

Communities depend upon and make choices about resources.

PROGRESSION OF PLACE

The appropriate scale is the school community and its local environment, with a focus on immediate surroundings.

3rd Grade

We want our students to be inspired to understand that there is interdependence among animals, humans, and their environments. We want to facilitate opportunities for them to identify how problems sometimes arise when environments change and to work with their peers to solve problems and answer questions.

NATURAL CONCEPTS

Cycles and change are important processes in nature—examples include life cycles, the rock cycle, and the water cycle.

SOCIAL CONCEPTS

Geographic tools can be used to understand our region's watershed, for example, with mapping.

PROGRESSION OF PLACE

The appropriate scale includes the neighborhood, the local community, the watershed, and the regional environment.

4th Grade

We want our students to be inspired to understand and have knowledge of their local ecosystems. We want to facilitate opportunities for them to be stewards of their local communities and competent investigating their own questions so that they may practice forming solutions to problems.

NATURAL CONCEPTS

There is interaction and interdependence among living and nonliving components of systems.

SOCIAL CONCEPTS

There is interaction and interdependence among human and natural systems.

PROGRESSION OF PLACE

The appropriate scale includes the neighborhood, the local community, the watershed, and the regional environment.

5th Grade

We want our students to be inspired to understand and have knowledge of their local ecosystems. We want to facilitate opportunities for them to be stewards of their local communities and competent investigating their own questions so that they may practice

forming solutions to problems. How needs are met with renewable and nonrenewable resources; Humans manipulate conditions to make them livable, which is dependent on resources and energy

NATURAL CONCEPTS

Earth and sun provide diverse renewable and nonrenewable resources.

SOCIAL CONCEPTS

People choose to move to new regions for different reasons, and their movement has a variety of benefits and consequences.

PROGRESSION OF PLACE

The appropriate scale is the regional community and environment, placed in a national context.

Middle School

We want our students to be inspired and gain a sense of self in their natural and human communities, including their impacts on others in those systems. We want to facilitate opportunities for them to discuss ideas, take in multiple perspectives, back up personal opinions with evidence, and distinguish between opinion and fact.

NATURAL CONCEPTS

Matter cycles within ecosystems and energy flows through them. These processes happen at both a local and a global scale, and humans can impact these processes.

SOCIAL CONCEPTS

Human and physical systems vary and interact, and human systems at different scales (community, region, nation, etc.) are interconnected.

PROGRESSION OF PLACE

The appropriate scale continues to expand from the schoolyard into a local natural area (greenbelt, stream, field or BCEE partner field trip) and into larger contexts (regional, state, national, global), including multiple encounters with an expanded place over time. Students explore the local community to watershed to regional environment within global community.

High School

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 using credible evidence.

NATURAL CONCEPTS

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

SOCIAL CONCEPTS

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



GUIDELINES

PROGRESSION OF PLACE

The appropriate scale continues to expand from the schoolyard into a local natural area (greenbelt, stream, field or BCEE partner field trip) and into larger contexts (regional, state, national, global), with multiple encounters in an expanded place over time.