



GUIDELINES

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

2ND GRADE

2nd 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.



2nd Grade Environmental Education Guidelines

Progression of place: The appropriate scale is school community within the local environment, with a focus on immediate surroundings.

NATURAL CONCEPT

Living things (including humans) meet their needs from their environment.

SOCIAL CONCEPT

Communities depend upon and make choices about resources.

The Guidelines

Head

ACADEMIC SKILLS AND KNOWLEDGE

- A habitat includes food, water, shelter and space in a particular arrangement that meets the needs of the plants or animals living there.
- Organisms depend on their habitats' nonliving parts to satisfy their needs.
- Each plant or animal has different structures or behaviors that serve different functions.
- Weather and the changing seasons impact the environment and organisms such as humans, plants, and other animals.
- People in communities manage, modify, and depend on their environment.
- Maps show where things are located. One can map the shapes and kinds of land and water in any area.
- Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)
- Patterns in the natural world can be observed. (2-ESS2-2), (2-ESS2-3)
- Learning can happen through observation including that of simple shapes, colors, and patterns.



The Guidelines *(continued)*



Heart

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

- Nurture care and respect for living things and natural areas.
- Foster a love of the natural world by modeling curiosity, appreciation, and wonder. Allow for and encourage imagination and creativity, questions, and stories.
- Provide unstructured time outdoors for play and imagination or time to sit/walk (goal: make this part of your routine with consistency and increased frequency).
- Practice skills in active listening in whole group settings, and during one-on-one interactions.
- Work together productively and collaboratively in small and whole groups for common goals and celebration of accomplishments.
- Model your thinking about how you feel when you go outside with your students. (For example, “Today, when we were outside, I noticed... I felt... I thought of...”).
- Learn to rely on ourselves and on each other.
- Model and identify empathy and humility, especially in the resolution of problems.
- Learn how to disagree.



Hands

ACTION AND SERVICE

- Provide time for cooperative and social play in natural settings.
- Support a classmate—promote acts of kindness.
- Facilitate students in defining a simple problem based on evidence (For example, a classroom plant is not thriving. Why not?).
- Take action to make a positive impact or solve a problem in the classroom.
- Keep the playground free from trash and litter.
- Complete a project to improve the school or schoolyard.



Feet

CONNECTION TO PLACE

- Build appreciation of, and familiarity with, surroundings—natural and built, including wildlife, people, plants, and neighborhood structures (streets, buildings).
- Foster understanding of our natural and cultural communities and how they 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.
- Provide for multiple encounters with a place over time.



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.



- Engage in outdoor play in a natural area (schoolyard or park). Play with the students. Make this a regular part of your daily schedule.
- Grow a plant or plant a garden.
- Investigate nonliving needs of plants (sun, water, soil). SC09-GR.2-S.2-GLE1
- Plan and conduct an investigation to determine if plants need sunlight and water to grow. RWC09-GR.2-S.4-GLE2, SC09-GR.2-S.2-GLE1
- Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants. SC09-GR.2-S.2-GLE2
- Observe and journal about one plant in the garden over time. (For example, watch for pollination and investigate behaviors and what function it serves, and describe how plants are impacted by seasons and weather.) SC09-GR.2-S.2-GLE1, SC09-GR.2-S.3-GLE1
- Dissect a plant when it is mature to see basic structures and relate to functions. SC09-GR.2-S.2-GLE1
- Make observations of plants and animals to compare the diversity of life in different habitats. SS09-GR.2-S.2-GLE1
- Write a story/poem about connection with a special plant or animal. RWC09-GR.2-S.3-GLE1
- Conduct a photo study of a site over time. SC09-GR.2-S.2-GLE1, SS09-GR.2-S.2-GLE1
- Visit a local natural area on a field trip.
- Engage in senses through a silent hike or sit spot.
- Explore diversity of life in an ecosystem through observation and collection.
- Highlight one plant and one animal that can be found in an ecosystem to talk about structure and behaviors that serve a function. SC09-GR.2-S.2-GLE1
- Discuss resources available and human impact on the area. RWC09-GR.2-S.1-GLE1, SS09-GR.2-S.2-GLE2

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.

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.