Leading Age Appropriate Outdoor Experiences for Children of All Ages

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Welcome!

- As you arrive, please use the paper at your tables to draw a tree
- Be sure to include and label the roots, trunk, branches and leaves in your drawing

Ecological Identity

How one views self in relation to the rest of the natural world

- Fill in your tree with words and or pictures to represent your ecological identity (childhood places, memories, mentors, teachers, outdoor experiences, books/poems, essays, community events)
  - Roots- Early Environmental Experiences
  - Trunk- Experiences that deepened your ecological awareness
  - Branches and Leaves- Experiences and/or circumstances that enhanced your environmental sensitivity

“Most environmentalists attributed their commitment to a combination of two sources: ‘many hours spent outdoors in a keenly remembered wild or semi-wild place in childhood or adolescence, and an adult who taught respect for nature”.

“ What a simple solution. No rainforest curriculum, no environmental action, just opportunities to be in the natural world with modeling by a responsible adult”- Davis Sobel

3 phases of EE (from David Sobel)

- 4-7 years old- Empathy for the Natural World
  - Feelings for the creatures living there, cultivating relationships with animals both real and imagined run like a deer, slither like a snake
  - Children like to become things rather than objectify them
  - "By telling their own animal stories, children are practicing ecology at its most profound and healing level"- Brenda Peterson

Preschool

- Curious, active
- Learn most by playing with real things
- Sort things/beginning to classify
- Believe that they are the center of the world (and that others see things the way they do)
- Tend to focus on parts (not whole)
- Often confuse real and imaginary & cause and effect
- Want to do things for themselves (developing independence)
- Have desires and intentions that often run ahead of their abilities
- Learn primarily through their senses and body movement
- Investigation often means poking, pulling, whacking

Strategies for Preschool

- Keep questions, explanations and activities short
- Ask them for one thing at a time
- Utilize their bodies (mimic noises, movements)
- Repetition, especially with new words/vocabulary
- Be explicit about what is alive and not alive
- Use parallels and analogies that center around them
- Use their imagination as a tool

Example Activities

- Shape Walk
  - Observe shapes in the natural and built environment
  - Look at nature in new ways by using tools constructed by the students
  - Express feelings about shapes in nature
- To be a Tree
  - Compare the children's bodies to trees
  - Learn about trees through music, movement and art

Early Elementary (grade 1-3, ages 6-8)

- Curious, active and eager to explore
- Use trail and error
- Apply past discoveries and experiences to new situations
- Make and test simple predictions
- May be very talkative
- More aware of other people's views
- Learn best by exploring with their senses
- Becoming more skillful with tools
- Enjoy active games
- Like to keep busy
- Vivid imaginations
- Can be impulsive
- Can be preoccupied with how things work and why
- Increased interest in numbers, counting, measurements and sequences

Strategies for Early Elementary

- Teaching through stories (avoid random facts)
- Comparing, considering numbers that arise during the course of the activity
- Activities should not include a competitive focus (like the idea of teams, but can't handle to responsibilities)

3 phases of EE (from David Sobel)

- 8-11 Exploration
  - Exploring nearby world and knowing your "place"
  - Making forts, searching for treasures, exploring the landscape, taking care of animals, gardening, posing questions

Upper elementary, 9-12yo, 4-6 grade

- Tend to be more selective in what interests them
- Developing ability to think and solve problems in their heads
- Still learn best through hands-on experiences (collecting and organizing data)
- Are able to see relationships between objects and ideas
- Should have an understanding of cause and effect
- Are more willing to practice a skill
- Accept and learn from others
- Beginning to develop ethics and awareness of larger community
- Are beginning to show shyness and awkwardness
- Like time for privacy and a place that is their own
- Need to have their confidence built up

Strategies for Upper Elementary

- Listen to their thoughts and opinions; respect them and they will respect you
- Ask higher order questions
- Resist the impulse to single out rude answers, entire group will turn against you
- Explain relationships
- Human habitat interactions

Example Activities: Adopt a Tree

- Early Elementary
  - Personal observation and investigation through their senses
    - Draw
    - Bark Rubbing/Feel
    - Describing Words
    - Can provide sentience starters (My tree feels like, My tree looks like)
    - Make a personal connection- why did you choose that tree… what is special about it
- Upper Elementary
  - Collecting information about their tree
  - Consider location (map to show location)
  - Tools to investigate further
  - Observe and record information about the parts of the tree (its seeds, leaves, etc.)… can provide a graphic organizer
  - Looking for other living things/evidence (interactions)
  - Adopt a Tree Certificate

Extend to Middle School: What do you want to know about your tree? How can we find that out? How do we measure height, circumference? Introduce field guides and more advanced tools.

Structure	Observation
Trunk Shape	
Bark (color, texture)	
Branches (shape, pattern, texture)	
Leaves (shape, texture, color)	
Leaf Arragement	
Seeds, fruits, flowers, cones	
Shape of Tree	
Plants and/or Animals on or around Tree	

3 phases of EE (from David Sobel)

- 12 and older- Social Action
  - Connectedness to society
  - Stewardship

MS & HS;
13-16yo
Grades 7-10

- Curious and willing to learn things they consider useful
- Enjoy solving real life problems
- Focus on themselves and how they are perceived by peers
- Resist adult authority and assert independence
- Are beginning to think critically; argue from evidence
- Need to feel apart of a peer group
- Prefer active over passive learning activities and prefer activities that involve working with their peers
- Still need frequent physical activity and movement
- Need adult support, guidance, and calm direction

Example Activity: Fallen Log

- Work on observing, representing, organizing information, inferring and analyzing skills
- Observing and looking for evidence to find out
- Working with peers
- Develop their own questions (with guidance) and way of tracking and recording
- How to collect data with as little disturbance as possible
- Field Guides
- Draw Conclusions- benefits of fallen logs to the ecosystem

Tips and Tricks

- Circle up- magnet feet, chicken wings; put yourself in the sun
- Boundaries
- Materials- manageable (science satchels)

  *Pre-k- k- collection bag, spoon, home made binoculars (1 tool)

  *Elementary- collection bag, notebook/paper, pencil, spoon, magnifying glass, ruler (ready for multiple tools… tools for general exploration)

  *MS/HS- materials more specific to task
- Give directions- have students repeat

Open Ended Questions

(avoid the yes/no or questions with 1 right answer)

- What does that make you think of?
- In what ways are these different?
- In what ways are these the same?
- What materials did you use? Why?
- What would happen if…?
- What might you try instead?

At Every Age, Always…

- **Encourage** children to share their observations
- **Facilitate** children's problem solving and investigation
- **Elicit** children's predications and explanations

Guidance Across Ages

- Acknowledge
- Encourage
- Give specific feedback
- Model
- Demonstrate
- Create or add challenge
- Ask questions
- Give assistance
- Give clear directions

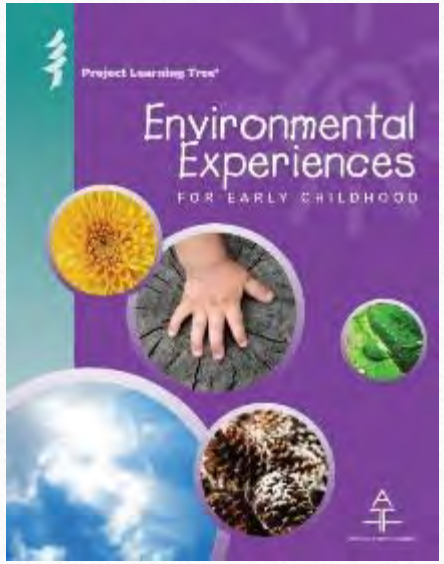
Basic Inquiry Skills Across Ages

- Observe and describe
- Draw inferences and conclusions
- Use scientific tools (can be simple like a spoon)
- Measure
- Classify/sort
- Compare and contrast
- Predict and check
- Record and document
- Communicate

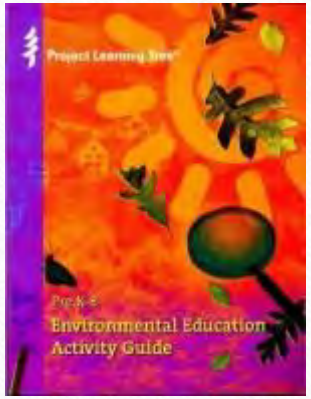
Age Appropriate Content

- Rhode Island Early Learning and Development Standards
  - Birth- 5 years old

- Next Generation Science Standards
  - Kindergarten – 12th Grade



Project Learning Tree®



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Environmental Education Association

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