

# Why Should We Teach Environmental Education?

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# First, what is environmental education?

*Environmental education is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment.*

EPA at <https://www.epa.gov/education/what-environmental-education>



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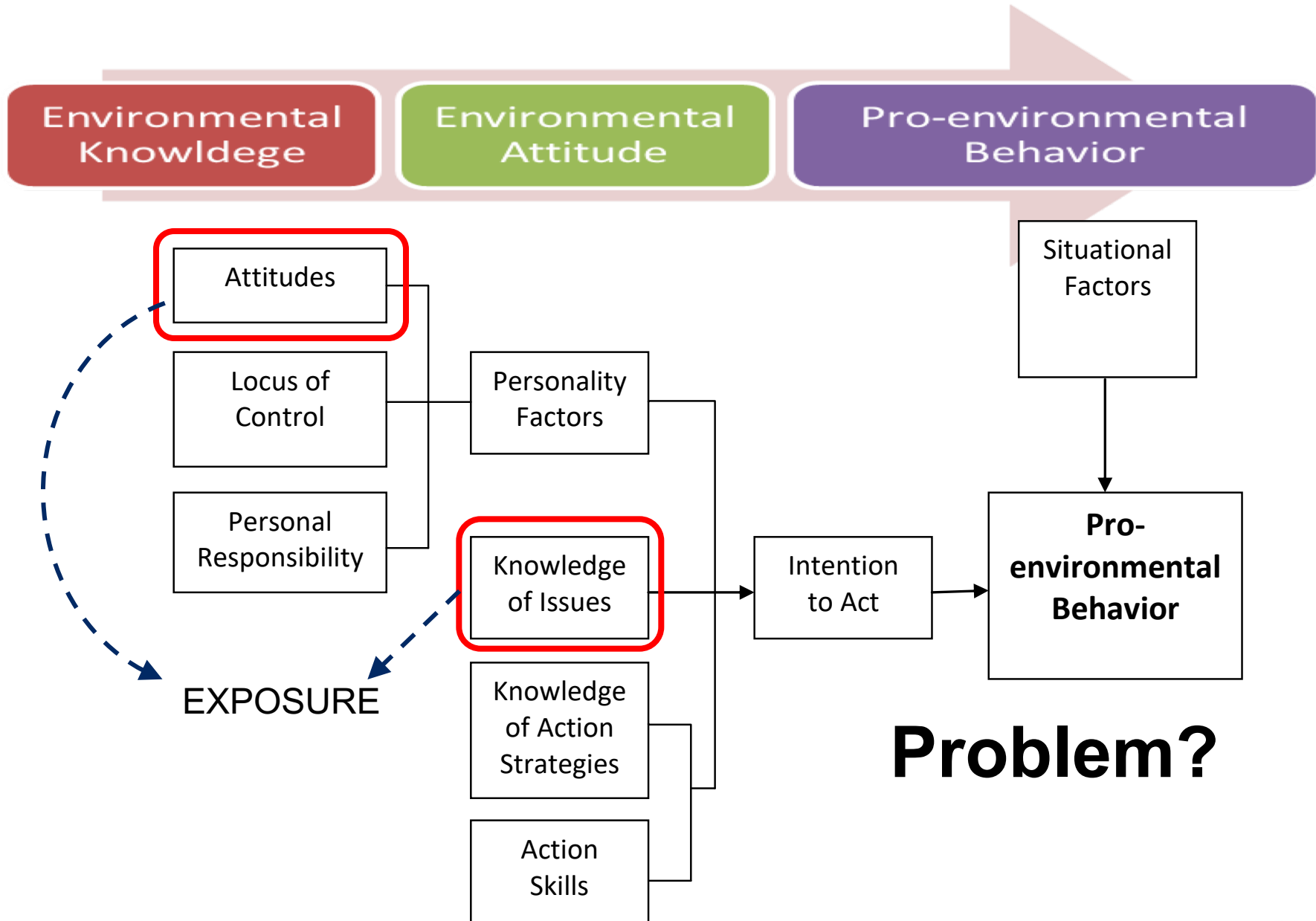
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*Environmental education is aimed at producing a citizenry that is **knowledgeable** concerning the biophysical environment and its associated problems, **aware** of how to help solve these problems, and **motivated** to work toward their solution.*

Stapp, et al., 1969, p. 54





# One reason to teach EE

*In the end we will conserve only what we love.  
We love only what we understand.  
We will understand only what we are taught.*

Baba Dioum, 1968

*We grieve only for what we know.*

Aldo Leopold, 1949

Exposure -  
Best Supported  
Through  
**Experience**



# The Power of the Experience

The following are a few “before” and “after” drawings of 10-11 years old students at a nature center.



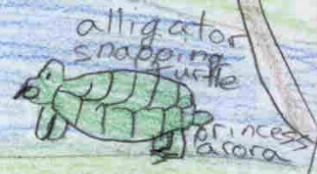
Beaver Dam



River



Beaver



alligator snapping turtle

or nassa acora

Fireants



monarch Butterfly



Beehive

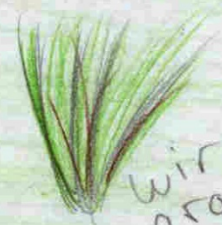


spider

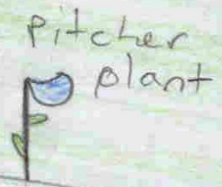
Deer



Pinecone



wire grass



pitcher plant



venus fly trap

Long-Leaf Pine



gopher tortoise



coyote



indigo snake







woodpecker

coyote

sunflower

the long pine tree

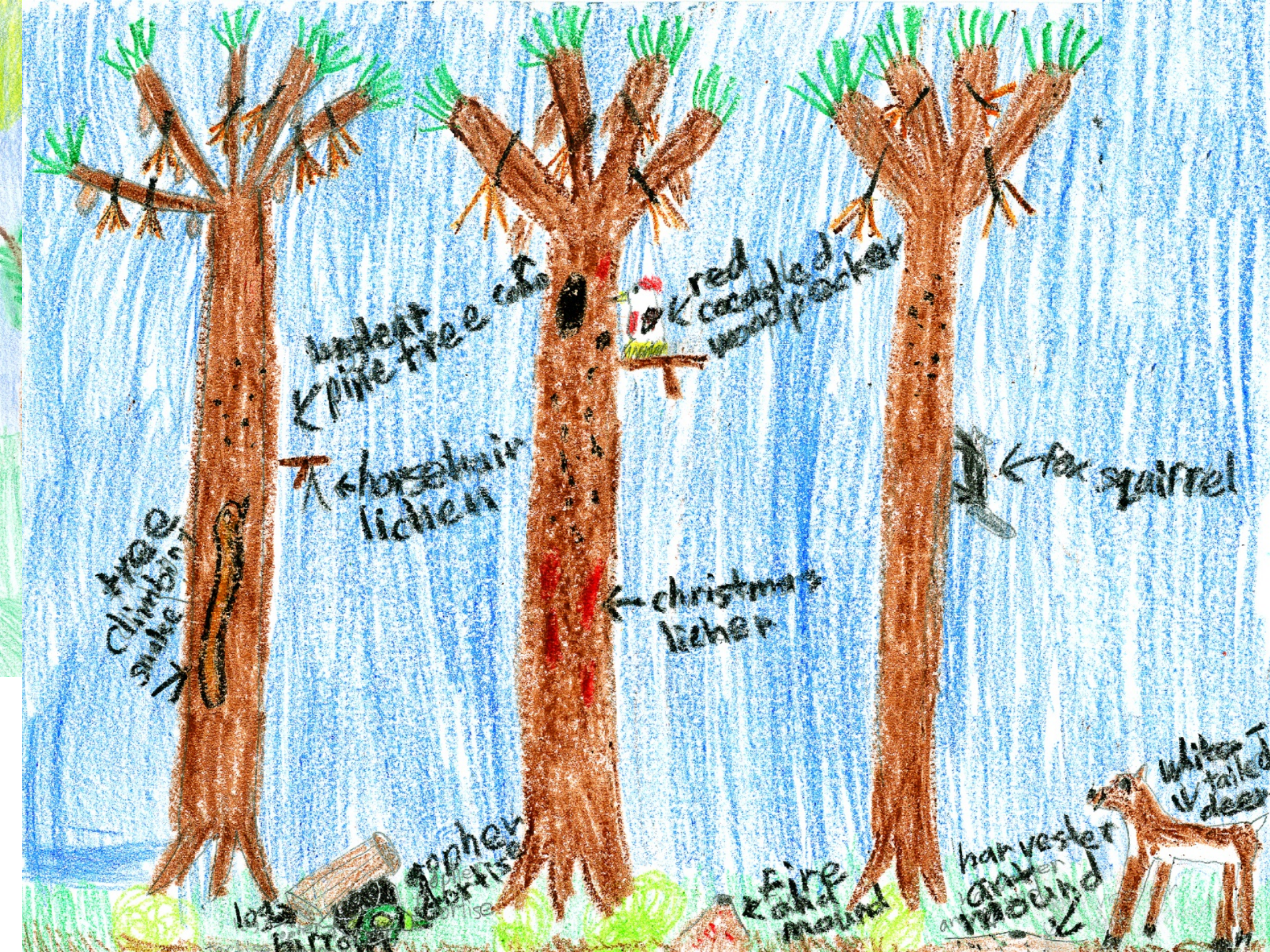
bear

the blue fish

summer  
frog

alligator





← barest pine tree

← red leaved woodpecker

← fox squirrel

← short hair lichen

← christmas lichen

climber  
shrike

loss  
burrow  
squirrel  
mole

← fire ant mound

← harvester ant mound

white tailed deer



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# Some 4<sup>th</sup> grade student Quotes

*The longleaf pine ecosystem is a very important and dying ecosystem...it needs to be saved.*

*Well what I liked the best was learning about nature... 'cause we need to take care of it, and if we don't there isn't going to be no nature in the future.*

*....when I stopped going there after our fourth field trip I never really looked at the environment the same way again.*

*....when I saw burrows it was my first time so of course I'm gonna remember it.*



# Another reason to teach EE - What do you see here?

I see a place to set a deer stand.

I see carbon sequestration

I see an upland buffer to my water source

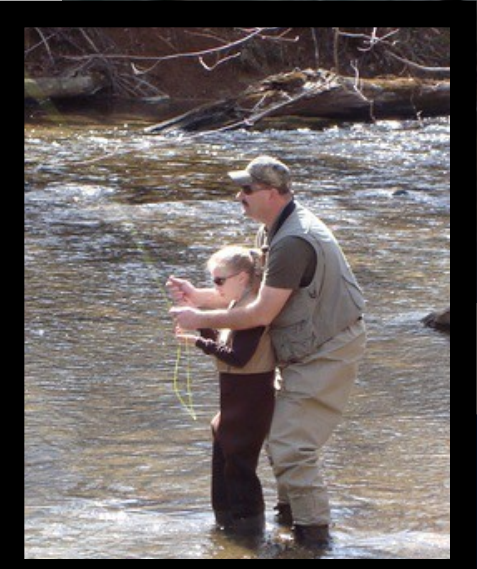
I see a place to hike and rejuvenate my soul.

I see a renewable resource, whose bounty provides food for my family

I see a forest that supports a diverse assemblage of species



# Let's try that again - What do you see here?



# What is in common?



The value of perspective and  
“shades of gray”





# Environmental Education situates learning within shades of gray – not black or white.



~ 8 million  
metric  
tons/year into  
the oceans

Plastic  
waste  
doesn't  
decompose

Plastics are  
ingested by  
animals –  
large and  
small

A synthetic fleece  
jacket can release  
as much as 1.7  
grams of plastic  
microfibers each  
wash

We should  
ban the use  
of plastics!!

Therefore

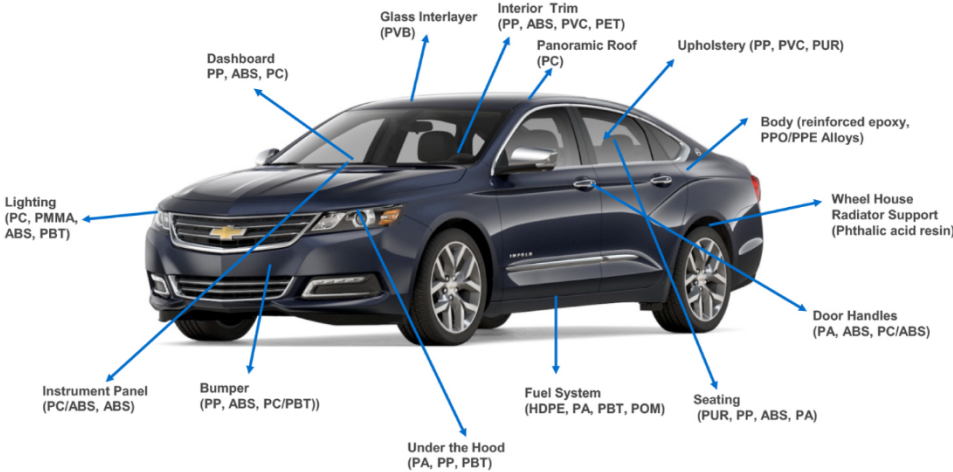


# But....

Single use plastics are used in health care



Figure 1: Plastics application in automotive parts



Source: Nexant

Used in cars reducing \$\$ and increasing fuel efficiency

# So what's the answer?



# Soft Skills or 21<sup>st</sup> Century Skills

- Critical thinking
- Creativity
- Collaboration
- Communication
- Information literacy
- Media literacy
- Technology literacy
- Flexibility
- Leadership
- Initiative
- Productivity
- Social skill

Skills Students Use When Engaging with the  
Environment

In fact, research has shown a link between environment-based education and increases in critical thinking skills.

In one study, students as young as 15 that were engaged with an EE infused curriculum had critical thinking skills exceeding those of college student.



# Environmental Education aligns nicely with science education reforms

*By the end of the 12th grade, students should have gained sufficient knowledge of the practices, crosscutting concepts, and core ideas of **science** and engineering to engage in **public discussions** on science-related issues, to be **critical consumers** of scientific information related to their **everyday lives**, and to continue to learn about science throughout their lives (National Research Council, 2012, p. 9).*



Environmental education engages students with issues that extend beyond nature and reach to the fundamental “character of education as a whole” (Bonnett, 1997).

Shouldn't we all be able to support that?

