



THE OHIO STATE UNIVERSITY

Global Environmental Issues in the Classroom

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World Cafe

- Question #1: What are your learning goals/outcomes for students when teaching about global environmental issues in your classroom?
- Consider the ideal - forget all constraints for a moment



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- Question #2: What are you currently teaching in your classroom regarding environmental issues and what do you *want* to be teaching?
- Consider what steps you need to take to get there!



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- Question #3: What ideas or concepts did you hear this morning that has already helped you think differently about global environmental issues?
- How might this influence your teaching on environmental issues?

Inquiry is...

- a question-driven, open-ended, and student-centered learning process.
- an opportunity for students to acquire, clarify, and apply concepts.
- an investigative and reflective process that provides for multiple ways of demonstrating learning.



Types of Inquiry



- **structured inquiry**
 - where teachers provide an issue or problem and an outline for addressing it
- **guided inquiry**
 - where teachers provide questions to stimulate inquiry but students are self-directed in terms of exploring these questions
- **open inquiry**
 - where students formulate the questions themselves as well as going through the full inquiry cycle



Inquiry begins with a question



- The question is appealing to students.
- The question taps into students' interests and passions.
- The question does not sound like a test question.
- The question leads to more questions.
- There is more than one answer to the question.
- The topic is personal or local.
- Students can relate to the question in their daily lives.
- The question is concise.
- Students will have choices for end products.
- There is an authentic audience for the project.
- The question requires serious investigation.
- Students will learn important skills and content.
- The question has no easy answer.
- The project will somehow make a difference in the world.



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- Question #4: Based on your learning goals and content ideas - brainstorm a few questions that could drive your lesson idea(s).
- Keep in mind: open-ended, “big” questions, most often related to problem-solving (but not always)

Development in Globally Minded PBL



Goal: Information gathering for a project that involves global issues but is limited to classroom and/or school.

Global Thinker

How: Work with technology to collect primary sources from multiple places to teach others about a topic or an issue to raise awareness and build perspective consciousness.

Goal: Community involvement related to local-global issues that involves problem-based learning and application.

Global Actor

How: Global Thinker+
Incorporate multiple perspectives to develop culturally sensitive solutions that involve collaboration with members of the affected community.

Goal: Sustainable and future oriented solutions, along with continual reflection and revisiting of biases and perspectives.

Global Citizen

How: Global Thinker+Global Actor+Cross-cultural collaboration, critical reflection, and informed, culturally responsive actions around global issues with people in multiple places.

A black and white photograph of a desk. On the right side, there is a pair of glasses and a small globe. The background is dark and out of focus.

PBL and Global Issues

- (1) place *student-engagement* at the center of the learning process; and
- (2) support the use of a wide range of resources that offer students the opportunity to grapple with *multiple and conflicting perspectives* related to local and global issues



Individual Reflection

- Brainstorm ideas and goals for your unit plan or lesson plans that you will create for this course.
- How might you move students to become more engaged citizens around global environmental issues?
- Feel free to bounce ideas off each other!



Instructional Strategies

- <http://go.osu.edu/CyNV>



#1

GROUP ONE

- take action in community/self
 - critical analysis of differing opinions
 - address biases
 - compare self to other countries
trying to be culturally responsible/
considerate
-

#2

- Nothing
- All of it } pop.
interaction
energy transfer
- Go Global rather than local
- Language Learners - focus on 1 issue
due to vocabulary
- Develop self-action plan
for sustainability



#3

- Solidified what was already ^{thinking}
- Challenge built-in ~~obsolete~~ ^{sense}
- Repurposing
- Even in times of prosperity, recycle like WW/II

Many societal challenges

#4

Who will you teach about this to make a difference and take ownership of the problem?

How will ^{action} activity/non-action affect you and your family?

What are the major environmental problems: local
state
federal
global
intergalactic, et. al
} levels

Why should you care?

What does a world w/ 8.9 billion people look like?

What is your personal action plan for sustainability?



GROUP TWO

I

- appreciation of the Earth
- understand the interconnectedness of global issues
- actively involved - Global actors
- research skills
- using the data to make decisions/recommendations
- broaden their perspective

II

- Env. Sci. CA drought; Renewable energy - carbon journal (footprint)
- Project - State/Federal problem
 - issue brief. w/ personal perspective.
 - advocate w/ letters; fundraisers
- connect personal action to global/political action.

III. What is 'average' person?

- what can we do daily to change our footprint? Make decisions as a family.
- Importance of motivating our students to make changes - to recognize what changes can be made.
- Recognize use of resources.
- How does consumerism/population connect the world/cause effect.

IV. What Q's do you have?

- Can we develop a vaccine for malaria?
- Cures/Treatments for Cancer?
- Environmental issues in NA.
- Impact to SA/Global of depletion of Rain forests?
- Environment/social/financial



GRAP THREE

- They are members of a community + their actions impact others. Use your power wisely but be humble
Understand obstacles so you can overcome them. Tools to communicate + debate.
More knowledge before argument. + all...

- EPA, Nat'l Parks, Conserv. v. Pres.
- Rivers + Industry in human geography
- Current impact on animals → whales, polar bears...
- How it impacts students directly (waste, health in Ohio)
- Bio simulations → local + global environ. data
- resource management, cohesive units in environ sci.
- get kids to change school culture + behavior
- No Impact Man

- 2050 = 8.9 billion humans → by the time they are old, the Earth is unrecognizable
- Predict Urbanization probs: world + U.S.
- Directly impacts them → how can they be proactive?
 - waste prevention
- Forest change maps + other data analysis to help brainstorm solutions.
- How can they influence those around them?



- Conservation laws = all / limited
- How do we overlap between cultural values / religion + science?
- conservation + preservation diff.
- US history + US Policy

Questions:

- Who should ~~bear~~ responsibility of solving environment? private? state govt? fed govt?
- How should the U.S. work w/ other countries to deal w/ environmental issues?
- In ideal world — what does the best environment look like?
- preservation v. conservation?



#1

GROUP FOUR

- Private sector involvement
- Students to become aware of problem "existence" ^{cognized}
- their Role in the problem
 - ^{they are a factor in prob.}
^{They are a solution in the problem.}
 - Take ownership ^{is:} Reuse Plastic forks @ lunch Always was # -
^{exp @ home use Wax paper, no more plastic wrap}
^{own bags, no more plastic bags, Stainless water bottles Refill}
 - Repurposing plastic etc.
 - Teach ^{Make Families Aware, In store teach (Shopping = bag)}
^{to eat food - compost - in school lunch compost}
^{No food waste / Recycle Paper etc etc etc}

#2

- Environmental issues in other countries (China, Colombia etc.)
- Environment / Contamination with what their everyday things (i.e. cellphones games etc)
- ^{light} NOISE / contamination
- School garden - come to school + tend it. get healthy food,
- Recycling ideas (paper, plastic) Reuse
o clothes, games, plastic



- How ASIA + SOUTH AMERICA have forest which oxygenate the rest of the world. Countries have over 50% of forests + U.S. complains about "them" destroying forests.

- Using maps to make the point & practice data interpretation skills

- "Waste is incomplete use" → how do we make something that is more completely used?

- sustainability

- What does Envi. Sc. Mean to you?
- What is your carbon footprint?
- How does the geo. of a nation impact the Envi. issues they face?
- Are you living sustainably? How could you live more sustainably?
- What envi. issues you would like to know more about?
- What envi. issues impact you (even if they aren't happening here)?





Questions and Contact Info

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Thank you!