Renewable NYC Professional Development Introductory Session

SUMMARY:

Participants are introduced to the concept of sustainability and its application to the school and local community. Participants calculate their own eco-footprints, assess products and draw curriculum connections to the concept of sustainability.

PREPARATION:

Location: School classroom
Duration: 1.5 hrs

MATERIALS

Consumables

ITEM	AMOUNT
_____ Chart Paper	4
_____ Markers	2 boxes
_____ Sustainable Settlers Worksheet	1 per participant
_____ Drawing Connections Worksheet	1 per participant
_____ Eco-Footprint Worksheet	1 per participant
_____ Reducing Your Footprint Handout	1 per participant

Non-consumables

ITEM	AMOUNT
_____ Soap Products (Method, Pangea, Dial)	3 bottles of each
_____ "The Print is Right" quiz	3
_____ Method Fact Sheet	3
_____ Pangea Fact Sheet	3
_____ Dial Fact Sheet	3
_____ Dry erase markers	3-9

OBJECTIVES:

Teachers will:

- Understand the concept of sustainability and how it relates to the environment, the economy and society.
- Reflect on communal and personal consumption and propose sustainable solutions.
- Develop curricular connections in order to better integrate the CUE curriculum into their planning.
- Become familiar with Renewable NYC curriculum in order to better facilitate extension activities.

INTRODUCTION: Sustainable Settlers

Time: 15- 20 minutes
Group Size: Small Group
Location: Classroom
Materials: Sustainable Settlers worksheet
Vocabulary: sustainability, resources
Summary: After presenting CUE and introductory comments, the instructors should inform teachers that they will be participating in a short group activity designed to illustrate the concept of sustainability at the communal level.

1. Begin by asking teachers what resources it takes to form a settlement. List those resources on the board. Ask them what happens when one of those resources runs out? What forces might contribute to whether a community can sustain those resources (How the resources are used, stored, managed).

2. Ask teachers if they know about what happened to the community at Easter Island (see talking points). Take a moment to explain how the Islanders drive to use resources to create the giant idols drained the resources and made the island unlivable. Elicit some parallels with today's society.

3. Ask the teachers to form into groups of three or four. Once in their groups ask them to imagine that they are settlers who have landed in the "New World" in order to start a community. Distribute the "Sustainable Settlers worksheet and assign each group an environment.

4. Ask the teachers to report back to the group, and to explain why they chose the items they did.

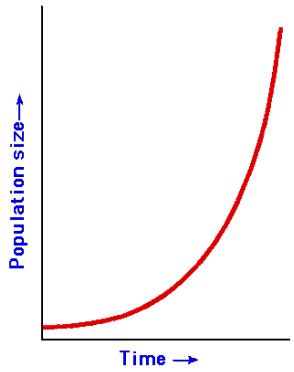
5. Explain why some choices might be better suited for some environments. Here are some examples:
    a. Corn suited for Cape Breton and Jamestown but not Santo Domingo because of soil/climate.
    b. Steel Traps not suited for Santo Domingo because of terrain.
    c. Rice not suited for Jamestown or Cape Breton because of soil/climate.
    d. Insulation unnecessary for Santo Domingo because of climate.
    e. Still (water distillation) necessary for Jamestown because of water quality.

6. Explain that this scenario is similar to the choices that settlers to the New World had to make. Why do they might the settlement at Plymouth survived but Jamestown did not? How might these historical episodes relate to our current environmental crisis?

Discussion Questions:

a. What are the basic human needs and how are they represented in this list of items?
b. What effect did the environment have on your choices? How would you have chosen differently if you were in a desert or the arctic?
c. What happens when the population grows and needs increase?
d. Why do they think the settlement at Jamestown might have failed?
e. How have our needs changed over the generations? What items have come to replace these basic tools?
f. What household items do we really need, and which might we consider luxuries?
g. How do our choices affect our household, our community, our world?

7. Draw a simple graph representing the exponential growth of the human population on the planet. How can we sustain resources when our population is increasing so rapidly?



8. Ask teachers to turn to the definition of sustainability provided in their materials. How might this definition apply to the environment, the economy and to society? List some examples on the board.

ACTIVITY 3: Calculating Our Eco-Footprints

Time: 15-20 Minutes
Group Size: Individual
Location: Classroom
Materials: Eco-Footprint Worksheet, Reducing Your Footprint handout
Vocabulary: Eco-Footprint
Summary: Participants will learn about the methodology used to calculate an individual's eco-footprint and reflect on their own consumption.

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1. Elicit a working definition of ecological footprint, and ask what criteria might be used to measure our personal consumption.
2. Ask teachers about how products and technology has changed since they were children. Do they think that families have a larger or smaller footprint than they did 40 years ago? What about other countries, how might Americans compare to Europeans or Japanese?
3. Ask teachers to complete their eco footprint calculations. Point out that this is a key exercise within the curriculum and that their students will be using them as well.
4. When they have completed their calculation, ask for volunteers to share out. In what ways do they practice sustainability in their homes? What systems might they design in order to improve their ecological footprint?
5. Ask teachers to refer to their "Reducing Your Footprint" handout. How can we apply these suggestions to our classrooms? How might our students change their habits and influence the habits of their families?

ACTIVITY 2: The Print is Right: A Product Analysis Game

Time: 20 minutes
Location: Classroom
Group Size: Individual
Materials: Method, Dial and Pangea soap, laminated "Print is Right" quiz, Method, Dial and Pangea fact sheets, erasable markers
Summary: Participants will compare the ecological footprint of three soap brands.

1. Ask teachers how they go about choosing which products to buy. What are their criteria for selecting between brands?
2. Explain that they will be playing a game in which they try and guess which soap product has the lowest smallest environmental footprint.
3. Elicit a working definition of ecological footprint, and ask what criteria might be used to measure the ecological footprint of a soap product. List those criteria on the board.
4. Divide them into three groups and give each group a "The Print is Right" laminated checklist. Review the criteria with them, and give each group one of the three products (Method, Pangea Organics and Dial).
5. Have each group evaluate the product by referring to the label and tally up the score. Ask them to pass the product on to the next group when they've finished.
6. Ask each group to present their findings. How can we apply these criteria to the products we buy for our homes, for our classrooms?

ACTIVITY 4: Drawing Connections

Time: 20 minutes
Location: classroom
Materials: Session Outlines, "Drawing Connections" worksheet
SUMMARY: Participants will review the outline of the three sessions (Water, Energy, Waste) and generate ideas for projects related to sustainability within multiple disciplines.

1. Ask teachers to refer to the curriculum outline in their folders. Quickly summarize each session, taking the time to address any questions that the teachers might have. Note if any of them have particular

needs for their class and be sure to communicate those needs to the instructor.

2. Ask teachers to share a short description of their current curriculum. What are they teaching? How might they relate it to sustainability? Reiterate the idea that sustainability is a concept that can be applied to any subject area.

3. Divide teachers into groups of three or four and distribute the "Drawing Connections" worksheet.

4. Direct teachers to brainstorm project ideas related to the concept of sustainability. Try and divide teachers into heterogeneous groups so that a diversity of disciplines is present in each group.

5. Return to the larger group and share out project ideas. Give teachers the space to develop one another's ideas and promote the cross-curricular projects that might be easily integrated into the curriculum during the duration of the curriculum delivery. Divide teachers into groups of three or four and distribute the "Drawing Connections" worksheet.

6. Ask teachers to consider how they might prepare their students for the first session, and suggest that they use the Sustainable Settlers activity or a short activity on Product Mapping included in their folders.

WRAP UP AND EVALUATION

Time: 10 minutes
Location: Classroom
Materials: Evaluation Forms
Summary: After a discussion on the activities in this professional development. Participants will fill out a written evaluation on the session.