

Warm-up Day 1 (week or 1/16/17 to 1/20/17)

1. Read the following quote and explain what the author is trying to say.

“When we try to pick out anything by itself, we find it hitched to everything else in the universe.”

– John Muir

2. How does your explanation connect with your understanding of environmental science and environmental justice?

Objectives

- SWBAT understand and speak about environmental justice in conjunction with their communities.
- SWBAT think about and develop ways in which tower gardens and non-traditional methods for farming can be used in different communities they are part of.
- SWBAT explain food system's impact on the planet.

Game Plan Day 1 (Week of 1-16-17)

- Warm-up
- Objectives
- Finish PSA presentations
- Brief Current Event Discussion
- Intro to Food Systems and Food Security
- HW:
 - Submit Benchmark PSA to Film Fest by Friday
 - Current Event #3 Food Systems closes Friday 8:15am
 - Discussion #2 Food Systems closes Monday 8:15am
- Cool Down

Homework

- Submit Benchmark PSA to Film Fest by Friday
- Current Event #3 Food Systems closes Friday 8:15am
 1. Research a current issue pertaining to Food Systems
 2. Find a SCIENTIFIC article relating to the topic (possible sources: [Scientific American](#), [Science Magazine](#), [Huffington Post](#), [Nature](#), [National Geographic](#), [New Scientist](#), [Science Beta](#).)
 3. Write a 1 page double spaced response
 1. Summarize the article (Include the title and name of the author(s))
 2. What is your reaction/opinion towards the article and the topic?
 3. What questions do you have after reading the article?
 4. Provide MLA citation, make sure the link to the article is available!
- Discussion #2 Food Systems closes Monday 8:15am Post your response to [Current Event #3: Food Systems](#) on this assignment. Read over two other people's response and provide comments pertaining to:
 1. What did your peer do well in the current event? Use specific parts of their response to explain yourself.
 2. What could your peer have done better in the current event? Use specific parts of their response to explain yourself.
 3. What would you like to learn more about from the article? What questions do you have?
 4. How does the article your peer choose relate to the article you chose for your current event?
 5. How does the article inform your notion of environmental justice? Other concepts you learned in the course or elsewhere?

Class notes: Steve Ritz & The Green Bronx Machine

- While watching this video write at least
 - 3 observations
 - 2 questions
- What similarities and differences do you see between Philly/S. Bronx?
- [SLA@Beeber Students Meet Steve Ritz](#) in 2016



Class notes: Ron Finley Guerilla Gardener

- While watching this video write at least
 - 3 observations
 - 2 questions
- What similarities and differences do you see between Philly and South Central L.A.?
- How are Ron Finley and Steve Ritz similar and different?
- In what ways can the community take control of the systems we are part of? Explain.



Tower Gardens Observations

1. Carefully observe your sprouts and include observations, predictions, and questions in your tower garden notes doc. Be sure to write each day's date when you make observations!
2. Remember to take lots of pictures and label them in your doc. Perhaps have a time lapse!
3. Helpful tips for when making Observations:
 - a. Quantitative:
 - i. How many seeds did you plant? How many of each type of seed sprouted?
 - ii. How many leaves in each?
 - iii. How tall are each plants?
 - iv. Anything that can be observed using numbers...
 - b. Qualitative:
 - i. What color are your plants?
 - ii. Is there any smell?
 - iii. Anything that can be observed using a description

Tower Gardens Observations

1. Possible data chart (remember, you need to create what makes sense for your group and is also useful)

Table 1: Day 1 January 10th, 2017 (whatever day you planted your seed)

Plant type	Quantitative Observation	Qualitative Observation	Predictions/ inferences	Questions	pictures

Table 2: Day 2 January 13th, 2017

Plant type	Quantitative Observation	Qualitative Observation	Predictions/ inferences	Questions	pictures

2. Possible data chart (remember, you need to create what makes sense for your group and is also useful)

Table 1: [Name of Plant #1] Growth over Time

[Name of Plant #1]	Quantitative Observation (units)	Qualitative Observation	Predictions/ inferences	Questions	pictures
Day 1 (date)					
Day 2 (date)					
Day 3 (date)					

Table 2: [Name of Plant #2] Growth over time

[Name of Plant #2]	Quantitative Observation (units)	Qualitative Observation	Predictions/ inferences	Questions	pictures
Day 1 (date)					
Day 2 (date)					

Cool Down Day 1 (1/16/17)

1. How did your opinions about methods for growing food compare to other people in your group's ideas?
2. What is one question you have about today's lesson?

Warm-up Day 2 (Week of 1/16/17 to 1/20/17)

1. What is the relationship between tower gardens and community?
2. What role does diversity play in the community?

Game Plan Day 2

- Warm-up
- Objectives
- WHYY survey
- Food Systems and Food Security Research (individual)
- Tower Gardens in the Community (group)
- HW:
 - Submit Benchmark PSA to Film Fest by Friday
 - Current Event #3 Food Systems due Friday 8:15am
 - Discussion #2 Food Systems closes Monday 8:15am
- Cool Down

Objectives

- SWBAT think about and develop ways in which tower gardens and non-traditional methods for farming can be used in different communities they are part of.
- SWBAT explain food system's impact on the planet.

Tower Gardens Photojournal

- Organize your observations of the Tower Garden.
- Each group member must embed the doc on to the Environmental Science Blog page and provide a reflection of the project. The reflection must touch upon the various learning objectives from the course (visit the class Canvas pages for learning objectives).
- You may create a time-lapse video too, but must provide observations from throughout your gardening and your reflection on how the Tower Garden connects to your understanding of the Environmental Science course and your overall understanding of the Earth as a system. What factors affected your garden? What conclusions can you draw based on your observations?
- Submit the link to your blog on Canvas assignment Tower Gardens Photojournal, this will be worth a project grade.
- **This individual submission is DUE FEBRUARY 1st,2017 (last day to turn stuff in for Q2!)**

Food System and Food Insecurity Research (Canvas)

Individually, please answer the following questions. Provide APA or MLA citation of all of your sources. Submit to Canvas for your classwork grade.

1. Research and summarize the history of agriculture.
2. What is a “food system”? Describe the current food system in America and in one other country.
3. What is food insecurity?
4. What is the cause of food insecurity?
5. What percent of Philadelphia is food insecure?
6. What percent of America is food insecure?
7. What percent of the world is food insecure?
8. How does the food systems and food insecurity affect the environment and overall health of people? Describe how natural systems change over time and space due to the food system. Explain giving specific examples.

Class notes: Food System and Food Insecurity Research Discussion

1. In your Tower Garden group, compare and contrast your findings from the “Food System and Food Insecurity assignment.”
2. In your class notes, reflect on the following:
 - a. How did your partner(s) research technique differ from yours? Did they use different keywords or articles?
 - b. Did you and your partner(s) use reliable sources? How do you know?
 - c. What surprised you about everyone’s findings?
 - d. What information was new to you from your partner(s) research that you did not find in your own research?

Tower Gardens in the Community (Canvas)

In your Tower Garden group which you joined on Canvas, each person should find one example of tower gardens/aeroponics being used in a community (classroom, neighborhood, etc.) and answer the following questions about it.

1. Summarize the example you found and include any details you think are important such as who is using the gardens, where they are, and what the purpose of them is. **(Cite your sources.)**
2. How have the tower gardens changed or transformed the community?
3. Do you think that the tower gardens are important for the well-being of the community?
4. Are the gardens being used as a solution to any environmental justice problems? If so, which problems and how?
5. How does this example make you think differently about whether or not a method of growing food can be environmentally just?
6. Do you see this implementation of tower gardens/aeroponics being possible for communities you have been or are part of? Why or why not?
7. Read online about at least one of your group members' examples. Compare and contrast their example to your own.

Homework

- Submit Benchmark PSA to Film Fest by Friday
- Current Event #3 Food Systems due Friday 8:15am
- Discussion #2 Food Systems closes Monday 8:15am

Cool Down Day 2

- Describe the process of inquiry?
- What role does the community play during an inquiry? Provide a specific example
- What role does inquiry play in the community? Provide a specific example

Warm-up Day 3

1. Describe the food system in America.
2. How does the food system in America compare to other parts of the world?
3. How does the food system promote or not promote an environmentally just community?

Game Plan Day 3

- Warm-up
- Objectives
- Tower Garden Observation
- Tower Garden Photojournal Intro
- [Community Diversity and Inquiry](#)
- HW:
 - Submit Benchmark PSA to Film Fest by Tomorrow
 - Current Event #3 Food Systems due Friday 8:15am
 - Discussion #2 Food Systems closes Monday 8:15am
- Cool Down

Objectives

- SWBAT describe the role of community in inquiry
- SWBAT think about and develop ways in which tower gardens and non-traditional methods for farming can be used in different communities they are part of.
- SWBAT explain food system's impact on the planet.

Tower Gardens Photojournal

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Day 2 (date)					

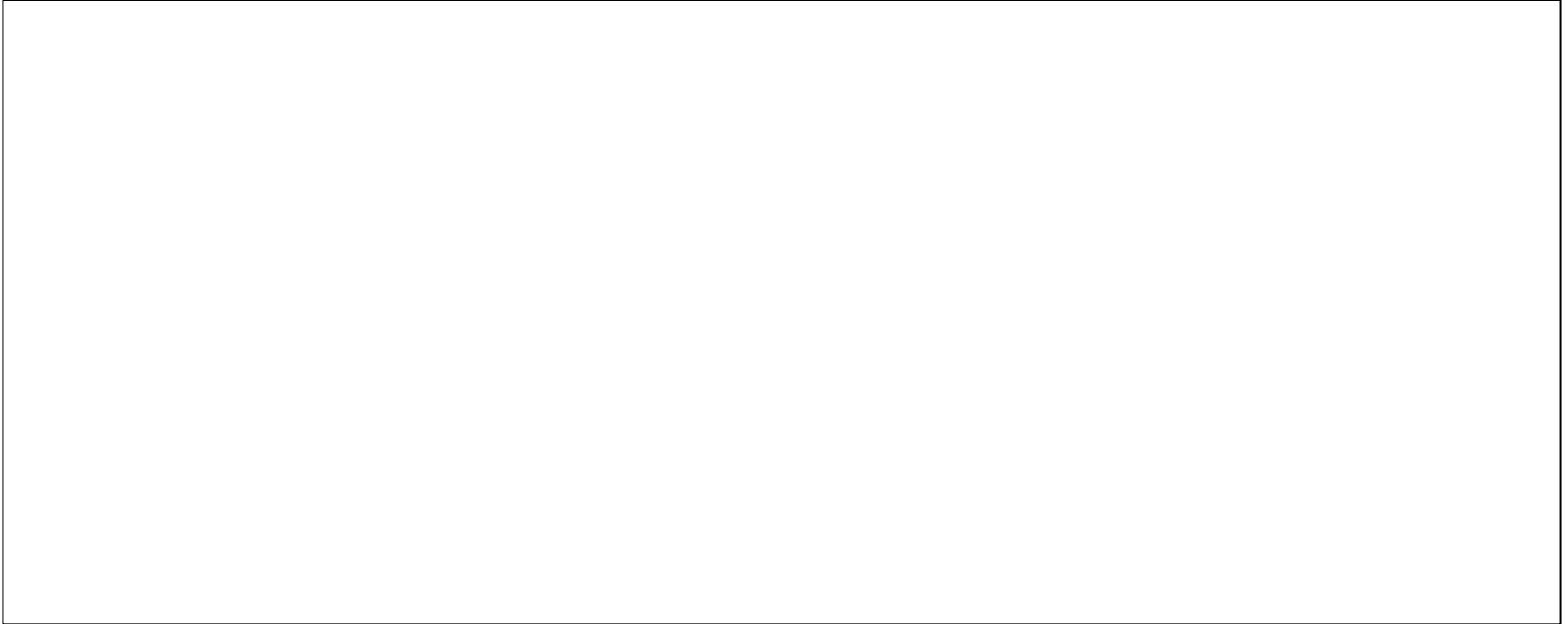
Tower Gardens Photojournal

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Homework

- Submit Benchmark PSA to Film Fest by Friday
- Current Event #3 Food Systems due Friday 8:15am
- Discussion #2 Food Systems closes Monday 8:15am

Cool Down Day 3



Warm-up Day 4 (Warm-up check)

1.

Game Plan Day 4

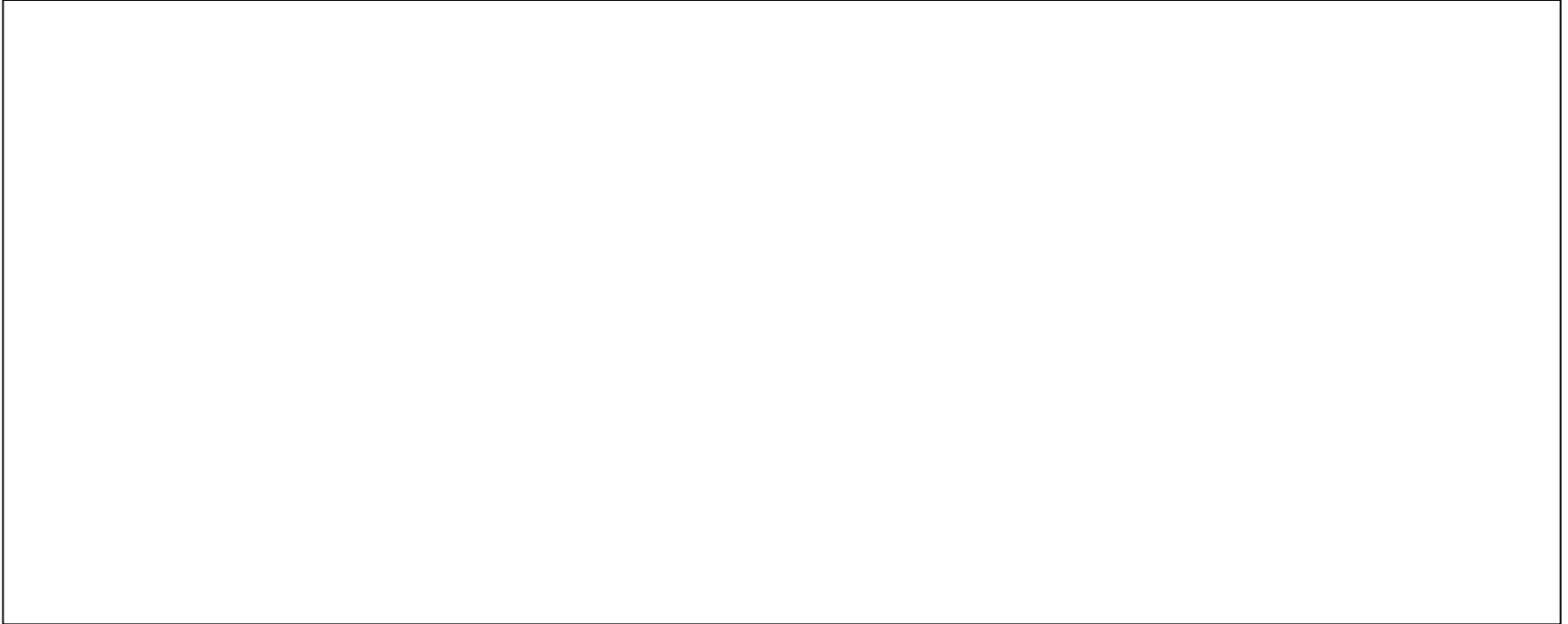
- Warm-up
- Objectives
- Tower Garden transplanting, if plants are ready
- HW:
 - Submit Benchmark PSA to Film Fest by TONIGHT!
 - Discussion #2 Food Systems closes Monday 8:15am
 - Current Event #4 Population & Climate Change due Friday 8:15am
- Cool Down

Announcements



Homework

Cool Down Day 4



Tower Garden Transplanting

- Create a data table appropriate for your group.
- Write down the pH of the water in which the wool is soaking.
- Follow the procedures from the spreadsheet and video carefully. **Take pictures of your set-up**
- Each member must write 2 observations & 1 question.
- Place your seed/wool in the reservoir under the light.

Population and Communities

1.