

Mission

STEMCAP:

Pollution



“Be a part of the solution, not a part of the pollution.”

Mill Creek Youth Center
November 2021

Day 2: *Sonic Sea* Film Discussion

Today's Goals Recognize and discuss problems and solutions relating to pollution presented in the film *Sonic Sea*.

- 1. What are the top 3-5 things that stuck with you from the film?**

- 2. How does noise pollution affect sea life? Where does it come from?**

Discussion Questions:

- 1. What is your reaction to the film? Do you feel moved, sad, hopeless, inspired to act? Were there any scenes that made you feel particularly emotional or inspired? Why?**
- 2. Noise pollution is a big problem for many ocean species, but it is also a problem in cities and other land-based environments. So how might noise pollution affect species here in Northern Utah?**
- 3. The ocean feels far away from where we live, but we still affect the ocean. What are some ways we negatively impact the sea, even from Utah? How might we contribute to ocean sound pollution remotely?**

Day 3: Science Right Now – Air Pollution in Utah

Today's Guest: Scientist Sara

Today's Goal: Understand the causes and effects of air pollution in Utah and how scientists can measure and combat this type of pollution.

1. How do Sara and her lab team study air pollution?

2. What did you learn from the hands-on activities?

Discussion Question:

- 1. Why is it important to monitor air pollution?**
- 2. Does Sara's work make you think differently about air? How?**
- 3. How can we use the problem-solving processes of science to find solutions to things going on in our own lives that we might not think of as scientific problems?**
- 4. What might be the next step after collecting and analyzing air quality data?**

Day 4: Utah Museum of Fine Arts Virtual Tour

Today's Guest: Ms. Katie and Ms. Annie

Today's Goal: Explore ways visual art can be used to tell stories and send messages about our world as you participate in a virtual tour of the Utah Museum of Fine Arts.

- 1. What types of art (i.e., paintings, sculptures, sketches) did you see on the tour?**
- 2. How does the UMFA play a role in the fight against grand environmental challenges, like pollution?**
- 3. It is not always easy for people to go to art museums. What are some other ways that people can use art to make statements and spread information? What are some ways that the UMFA increases accessibility to the art in their collection?**

Discussion Questions:

- 1. Which work of art stood out to you the most? How did the artist uniquely demonstrate their subject?**
- 2. Does knowing the title of a work of art make you see details of the work differently than you would if you did not know the title? How?**
- 3. How might works of art help us better understand changes in our world?**

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Day 5: Art/Science – Visual Art
Today's Guest: Ms. Annie and Ms. Katie

Today's Goal: Understand the role of visual art in helping us express ideas and engage with the world in various ways.

- 1. What colors did you choose for your clouds? Why?**

Discussion Questions:

- 1. Why do you think we used watercolor as our medium? How might your homemade watercolors relate to pollution?**
- 2. Why might air pollution be a particularly interesting theme for an exhibit at the Utah Museum of Fine Art?**
- 3. Has a work of art – a painting, a photograph, a drawing - ever inspired you in the past? In what way?**
- 4. Why do you think artists use their art form as a way to teach about something or stand up for something they believe in?**
- 5. What is a topic that you care about? How could art be used to communicate about it?**

Day 6: Science Right Now – Solar Power

Today's Speaker: Ms. Brenna

Today's Goal: Understand the benefits of solar energy and some of the various career paths available that help prevent pollution.

- 1. List two benefits of solar power.**

- 2. Why is Utah a perfect place for solar?**

- 3. What is one drawback of solar power?**

Discussion Questions:

- 1. What does solar power have to do with pollution?**
- 2. The cars you raced were solar-powered. While we don't have full-sized vehicles with solar panels, we do have electric cars, and people can use solar power to power their car charging stations. How might a move toward electric cars – especially solar-charged electric cars – help Utah have cleaner air?**
- 3. What are some jobs Brenna talked about in the solar industry? What are some other jobs you can think of that relate to renewable energy?**

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Day 7: Art/Science – Creative Writing

Today's Speaker: Laura

Today's Goal: Understand the use of poetry to express and respond to the issue of pollution.

Discussion Questions:

- 1. Who is your imagined audience for your poem? In other words, who would you ideally like to read your poetry?**
- 2. What imagery (or descriptive language) did you include in your writing? Why?**
- 3. What does poetry offer that scientific writing might not?**
- 4. Did you find it helpful or limiting to choose words from a page to create your poem?**
- 5. How did writing this piece help you reflect on pollution in a new way?**

Day 8: CorRESPONDence – Starting a Conversation
Today's Guest: STEMCAP Staff

Today's Goals: Write messages about what you know and how you feel about pollution that you could use to start a conversation about the issue.

1. What are three methods or tools for communicating about pollution?

2. What is a non-profit organization?

Discussion Questions:

- 1. Why is it important to communicate about a problem with others?**
- 2. Working for a non-profit organization is one way to have a job that prevents environmental issues like pollution. What other jobs help protect the environment?**
- 3. Whom might you want to have a conversation with about pollution? Friends? Businesses? Community leaders? What kinds of things would you want them to know, and what would you hope to learn from them?**