The need for sustainable design and resilient infrastructure is becoming more and more apparent in this era of increasing threats due to climate change. Miami is widely recognized to be one of the most vulnerable areas of the United States to sea level rise. The Patricia and Phillip Frost Science Museum was designed with this in mind, and serves as a model of practical applications of sustainable design. The purpose of this lesson is to make the student aware of the importance of constructing sustainable buildings and the importance it has to both humans and the environment.

This lesson addresses the following MDC Learning Outcomes:

3. Solve problems using critical and creative thinking and scientific reasoning.
4. Formulate strategies to locate evaluate, and apply information.
6. Create strategies that can be used to fulfill personal, civic, and social responsibilities
9. Demonstrate an appreciation for aesthetics and creative activities
10. Describe how natural systems function and recognize the impact of humans on the environment.
Activity:

In preparation for class, students will review:

https://www.frostscience.org/about-our-building/sustainability/

Required article reading/video:

https://greenliving.lovetoknow.com/Why_Is_Sustainable_Development_Important

https://www.epa.gov/sustainability

https://www.youtube.com/watch?v=amDNv9f0o

Instructions for Activity:

1. Students will read the articles and watch video for homework
2. Students will take a “tour” of the Medical Campus and take notes on sustainability
3. Students will present and discuss in class the following questions:
   a. How do humans affect the environment when we do construction?
   b. How does the environment affect us depending on what type of construction is done?
   c. How can you apply “green” innovations in your life?
   d. Do you think the Medical Campus was built with sustainability in mind? Why or why not?
   e. If you could make changes on your Campus, what would you change to make it more sustainable?