HOMESCHOOL TEEN ART WORKSHOP
LESSON OUTLINE: DATA AND DISCOVERY IN THE ARTS

WEBSITE DESCRIPTION:
Learn how to think like an artist while experimenting with different mediums through observation, dialogue, and practice in the Walters’ galleries and studios. During this monthly workshop, work with instructors during a single session to learn basic skills, or attend multiple sessions to develop expertise.

OBJECTIVES:
- Review the National Geographic Educator + Explorer Exchange Program.
- Discover how archaeologists use data and technology to uncover civilizations and artifacts of the past.
- Explore what artifacts can teach us about environments and civilizations of the past.
- Learn how contemporary artists incorporate data into their art making process.
- Create data driven artwork.

MATERIALS:
Charcoal pencils
Color pencils
Drawing pencils
Drawing boards with paper
Erasers

Mixed media materials
Sharpeners
Sticky notes
Numbered boxes with unidentified objects in inside
Print outs of contemporary artists
Mixed media material

VOCABULARY:
Data: pieces of information through direct observation from which a conclusion can be drawn
Interpretation: the meaning of something
Observation: utilization of the senses to gain information about a subject matter

1:30 PM-2:00 PM INTRODUCTION IN THE CHAMBER OF WONDERS:
Discussion: Review the Explorer + Exchange Program with students. We are involved with a special partnership that I would like to include you all in. It is called the National Geographic Educator + Explorer Exchange Program. It partners educators with National Geographic emerging explores to embark on new education initiatives in the classroom. We are partnered with a Paleontologist Dr. Harimalala Tsiory Andrianavalona in Madagascar. She uses observation and interpretation of the natural world to reconstruct environments of the past. Dr. Andrianavalona and I have discussed the possibility of photographing your work and putting it on a blog. That way she can comment directly on your work and you can access her feedback whenever you would like. She has made comments on some of the work that was posted last month.

Last month we watched a video that Dr. Andrianavalona prepared for us discussing her work and the roles that observation and interpretation play in the scientific process. Afterwards we discussed how those themes are also used in the creative processes. If you did not get to see the video, I will send it in the post visit activity. This month our focus is data and discovery as it relates to art and artifacts. There are many similarities between the scientific and creative processes. Many contemporary artists use scientific research and technology in the creation of artwork. There are also many archaeologists incorporating data through technology as a tool for discovering artifacts and civilizations of the past. Next month this workshop will take place at the Natural History Society of Maryland where we’ll get to observe natural specimens and continue our work and discussion on these themes.
**Activity:** As a warm up activity, we are going to start with observation using our senses. Our senses will be the tool we use to collect data/information on an object and draw it. For this activity, we will use our sense of touch. I have 4 numbered touch boxes. Your job is to choose a touch box and use your sense of touch to collect information on what is inside and draw your observations without seeing the objects. Once you’ve finished with one box, move to the next and begin the activity again. Write the number of the box on your corresponding drawing so you know which drawing is from what box. *Give students 10-15 minutes for this activity.*

Gather around each box and have students share their observations and drawings. What data did you collect on your object through touch? *Reveal each object after students have shared and discussed.* Were you surprised by the objects in the box, or did they match your observations? What was challenging about this exercise, what did you enjoy about it?

Next, we’ll travel to the Art of the Ancient Americas galleries and learn how archaeologists use data and technology to discover civilizations of the past. We’ll do a quick scavenger hunt to uncover what we can learn from cultures of the past through the objects they used and created.

**2:00 PM-2:45 PM DISCOVERY IN THE ART OF THE ANCIENT AMERICAS GALLERIES:**

**Discussion:** The objects in this gallery date between 900 BCE and 1600 CE when sophisticated civilizations flourished from Mexico to Peru. Archaeologists, scientists and historians are using technologies such as LiDAR to collect data and make new discoveries about ancient civilizations that have forever changed our understanding of ancient cultures.

One such discovery was made in Caracol, Belize. *Point to gallery map.* Archaeologists used LiDAR, a light detection and ranging technology. It utilizes laser beams and creates 3-D maps of an area by collecting data through measuring the distance to and from a target area. It’s effective in jungle environments because it can create a map of surface topography without vegetation. *Show picture*

Although archeologists have known about the site since the 1930’s, LiDAR technology revealed that archaeologists had previously discovered only 10 percent of the site through ground surveying. It revealed an urban landscape with reservoirs, roads, cemeteries and complex structures while changing our perception of ancient rain forest communities forever. *Additional information can be found here.*

**Activity:** Take a moment to observe the objects in this gallery. Each of you will be given a question to find an answer to by looking at the objects and reading the labels. Let’s see what we can learn about civilizations of the past through the art they created. *Questions to investigate:*

- What is the significance of the color red?
- What is the significance of the head?
- What was used for drinking chichi?
- What does the protuberance at the front of the fishermen’s headgear help them do?
- What is zemís?
- What is the significance of the four corners on the Peruvian hat?
- What is the god Mok Chih associated with in Maya culture?
- Which god was associated with the leaf nosed bat?
- Which sculpture is also a whistle?
- Who wore headdresses?
- What materials did different cultures have access to? What does this tell you about the environments where the pieces were made?
• Which piece attests to the persistence of indigenous ancestral toasting traditions and celebration of Inca royalty in the face of colonization?
• How did one capture the life force of another human being?

Think-Pair-Share: While finding answers to their questions, students will think independently, then discuss answers with a partner, and share their combined responses with the class.

2:45 PM-3:30 PM ART MAKING IN THE 4TH FLOOR GALLERIES:

Discussion: Just like modern day archaeologists (and museum staff) use data and technology to learn more about cultures, environments, and materials of the past, modern artists also incorporate data and technology into the artwork they create.

Print out pictures of artists work along with descriptions. Put on clipboards and have students rotate through to learn about the different artists. Instruct students to “tweet” about the artists using post-it notes. Give students 10 minutes and then come together for a large group discussion on what stood out to them.

List of artist for students to observe:
• Nathalie Miebach
• Laurie Frick
• Jill Pelto
• Andrea Polli
• Di Mainstone
• David Bowen

Activity: We are going to collect our own data and create a work of art based on what we collect. Like the contemporary artist, Nathalie Miebach, we can explore the role visual aesthetics play in understanding and translating data to a broader audience. Show images of her work. Some of your pieces might look more abstract than others depending on how you decide to visualize the information. Each of you will be given a data prompt to spark an idea. You can stick with your prompt, or develop your own idea. Prompt examples:
• Sit in a gallery and record the sounds you hear from visitors or classmates through creative mark making.
• Secretly capture, through mark making, the movements of museum visitors walking through gallery spaces.
• Utilize different mark making techniques and draw the sounds you might hear from every painting or sculpture in one room if they came to life.
• Record the different shapes and textures of the trees in every painting in one room.

You can decide how you would like to start this process. For most of you, you might start with data collection. For some, this process will involve sketches that will translate into a final piece after the data collection. For others, your data collection might be part of your final piece. You are welcome to use all the supplies on the cart to create your data driven artwork.

CONCLUSION:

What did you learn about civilizations of the past by looking at objects in the ancient Americas collection? What was your favorite contemporary artist that you learned about? What did you like about their work? Describe your process for creating data driven artwork? What does your piece communicate? Did you enjoy this process or find it difficult? What makes you say that?