STEAM: Science, Technology, Engineering, Art, and Math
Workshop Lesson Plan for Elementary School Students
2022–2023 School Year

What’s the Big Idea?
Empathy, Creative Problem Solving, and Design Thinking

STEAM Tour and Workshop Purpose:
Students will use the High’s collections as evidence of creative problem solving, learning directly from the objects and galleries how artists and museum professionals create innovative solutions to complex problems.

Essential Questions:
Use the following guiding questions as you lead your students through the workshop:
- How is an artist like a designer, explorer, or scientist?
- How do artists and designers create solutions to problems?
- How are art and design important to our communities?
- What is the purpose of a museum? Who works at a museum?

Objectives:
Students will...
- use creative problem-solving techniques to complete a design challenge
- work with 3D models to test solutions to a problem
- discover how artists use empathy to ask questions and explore solutions about community issues
- consider how art and design affect people in their community
- explore the skills used in various museum professions (curator, designer, art handler, etc.)

Procedures:
Introduction (5 mins)
Teaching Artist will ask and discuss with students: What is a museum? What is an artist? Connect how artists are like designers, explorers, and scientists; they experiment and use creative problem-solving! How are we going to work like an artist today?

Connections (10 mins)
We talked about what a museum is and what an artist is, but how does art get to a museum? How do we put art on display, and how does the museum keep that art safe? Show students images of how works of art are installed in the museum. Talk briefly about the jobs that people do at a museum—mention artists, art handlers, curators, and designers (see Vocabulary) and how they all use creative problem solving.

Compare installation images to images of completed gallery spaces. How are they different? How does the final display make you feel? This is how exhibitions are made. Let’s make our own!

Design Challenge (20 minutes)
Introduce the design challenge for the day—your class has been commissioned by the High Museum of Art to create an exhibition full of new art. Teaching artist will facilitate a class brainstorm of what exhibition theme they would like to
make art for. Potential ideas include colors and shapes, endangered animals, space, pollution, weather, jobs in your community. Write down everyone’s ideas on individual slips of paper and put them into a bucket; then pull one and announce the official theme of the exhibition!

Students will make a work of art on a 4 × 4 canvas that coincides with the chosen theme. Once completed, students will then work with their class to find a way to best display each other’s works of art. They should ask questions like: Which works look best next to each other and why? Can we find a way to tell a story through our combined art, and how?

**Differentiation**

- **Extensions:**
  - If students finish their work early, encourage them to add layers/collage to their work of art, sign the back of their work like an artist, or write a brief wall label to accompany their work of art.
  - If students are advanced, consider assigning them roles based on the museum jobs discussed earlier (art handlers, curators, designers) as they collaboratively “install” their works of art or encouraging them to move the walls of the gallery model and think about environmental aspects of display (like wall color) that would best accentuate their art when it’s displayed together, etc.

**Closing and Presentations (10 mins)**

Allow students to present their works of art and help them, as a class, install their works next to each other in the model gallery. Once students have all contributed their work of art, congratulate them—they are artists! Recap with students why museums are important and discuss with them museum etiquette and museum conservation. Guide students in recalling all the skilled people who help museums to function, as discussed at the beginning of class. If there is time, allow students to reflect on the following:

- How do you think someone walking through your class exhibition would feel?
- How is your piece of art related to the theme of your class exhibition?
- What problems did you work with your class to solve?
- If you could make your exhibition again, would you change something or add something to it?

**Clean-up (5 mins)**

Leave time for students to deconstruct their exhibitions and return materials to designated areas. Students may keep the piece of art they created on their 4 × 4 canvas.

**Vocabulary**

- Design
- 3D model
- Artist
- Designer
- Curator
- Art handler

**Materials**

- 3D gallery model
- 4 × 4 canvases
- Crayons
- Sharpies/markers
- Pastels
- Paint

**Materials for the Instructor**

- Visual schedule
- Visual timer
- Laminated images of artwork in permanent collection