Gulf of CA Mural

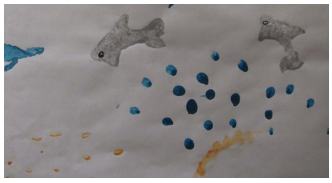
ACTIVITY: Become a scientist to illustrate and track Gulf of California populations

GRADE LEVEL(S): K to 6th
30 minutes for mural
Follow up 20-40 minutes

OVERVIEW: Students finger- and sponge-paint to create a mural to do their own population study

DISCIPLINES: Science, math, and visual arts

OBJECTIVES: Students will be able to:



- Create an under water scene or mural of the Gulf of California
- Identify three ocean animals that live in the Gulf of California
- Define food chain and food web
- Discuss the importance of understanding animal populations
- Predict possible outcomes of removing too many animals from an ocean ecosystem
- Discuss why vaquita, fish, shrimp and other animals are important to the ecosystem
- Recognize that legal and illegal fishing has caused the depletion of vaquita and totoaba
- Discuss why only buying and/or eating sustainably caught seafood can help protect ocean animals.

MATERIALS:

Finger Paint (gray, black, blue, and other colors)
Butcher Paper
Washable black marker (or Sharpie for older kids)
New kitchen sponges
Scissors (for prep)

OPTIONAL

string and painting masking tape
grid paper
pencils
calculators

WHAT TO DO:

NOTES:

- For younger students, rather than painting the finger over and over, we use the kitchen sponge to "ink" their finger. This makes it quicker, easier, and a bit neater. We cut the sponge into 2 or 3 rectangles, dip it into the paint and place it near student groups. Re-ink (paint) sponges when needed. Have sponges ready with different paint colors.

Preparation:

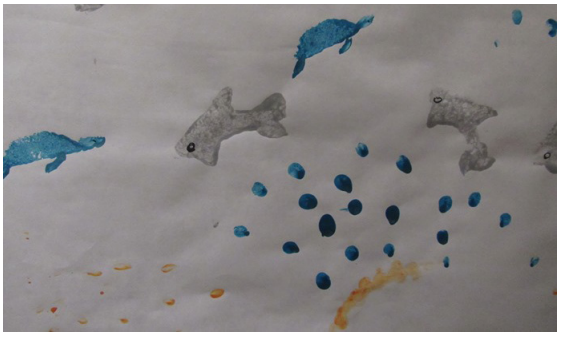
Step 1: Pre-cut butcher paper to the desired size. The class can create one, or small groups or individuals can create them.

Step 2: Prepare fingerpaint colors and inking sponges as needed.

Step 3: Set up painting area as needed.

Paint the mural(s):

Step 1: To make a vaquita have kids press the side of their hand – from palm to pinky fingertip – on the "inking" sponge. Next, have the students press or gently stamp their hand onto the paper. We recommend the kids practice getting the shape they want on a paper towel or small piece of paper before decorating the mural.



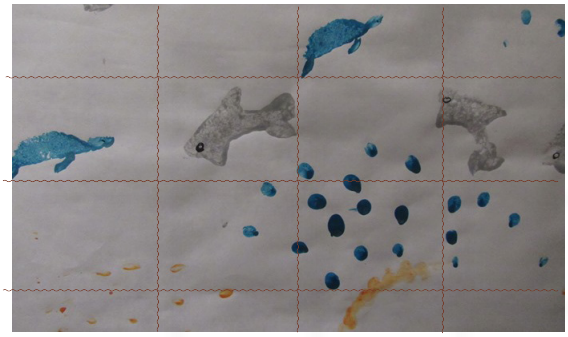
Repeat Step 1 to make as many vaquita as desired. Allow paint to dry (This usually takes very little time).

Step 2: Use different color paint and fingers or hand in different to create other ocean animals important to the vaquita's food web. Examples include: totoaba, shrimp, fish, and squid. See Food Web handout for animals kids might want to include.

Repeat Step 2 as many times as desired.

Step 3: When the paint is dry. Use the black marker to add the dark eye and lip coloration on to the vaquita, gills and eyes on fish, eyes on the shrimp...etc.

Step 4: This craft can be used to create a small picture or a large one depending on your curriculum or if you want to add additional activities as part of the mural. Options include:



- Count the total number of vaquita, totoaba, other kinds of fish, shrimp, ...etc. on the mural(s).
- Use string to create a grid on the mural(s). Label the vertical and horizontal axis. Choose a portion of the grid. Count the number of vaquita or other animals in that section.
- Determine the number of vaquita, totoaba, other kinds of fish, or shrimp at each location (section of the grid.) Then students can:
  - Compare and contrast
  - Determine percentage
  - Create a graph(s), charts, or maps to represent data
  - If older students,discuss realities of real vaquita population in comparison to their mural. (There are less than 30 vaquita left in the world.)
- Discuss the challenges for marine scientists in determining actual population size and location of animals.
- Discuss why it is important to understand how many and what kinds of animals are at different depths.
- Use the mural as the center of your discussion on the food web for the Gulf of Mexico.
- Use the mural to represent the trophic level and/or to discuss how the energy moves throughout the food web.