Mapping the Bay.

Instructions for Teachers

This lesson is to be done in class before visiting the museum and uses a map of the Bay to orient students to the geography of the Bay Area.

Make copies of the map for students. Explain that on the left side, there is a wide border—this is *not* land. Students should understand that the Pacific Ocean extends beyond that border.

Before You Start With the Map

In order to do this assignment you need a projection of the map or a larger copy or to draw what you need on the board. Most students will work best if they can see what you are directing them to place on the map. Make sure you circulate around the class to assist where necessary. You also might want to download or get a copy of a San Francisco Bay Area Map [baycityguide.com provides a map that is useful] and a map with the bridges that cross the bay. [Bay Area Toll Authority makes a map that is useful].

Allow time for students to look at the shape of bay and how it is formed. Ask students why it might be called a Bay—how the Bay might have been formed, etc.

Mapping the Bay

The lower left hand border is a good place to put a compass rose. Students should use the lower left hand corner to put a compass rose with the cardinal directions: North, South, East, West.

After you have the directions identified, have students find and write in the east bay, north bay, and south bay. These regions are often referred to when people discuss the Bay Area. You might have students fill in a few cities for each region. Be sure to also include the city where your school is located and cities surrounding your area.

- East Bay: Oakland, Berkeley, Hayward, Richmond, Walnut Creek, etc. (choose cities that have relevance for your students or cities that may be familiar).
- South Bay: San Jose, Santa Clara, Mountain View, Sunnyvale, etc.
- North Bay: Sausalito, Mill Valley, San Rafael, San Anselmo, etc.

Explain that San Francisco is on the western side of the Bay, but that region is usually called the peninsula. Explain what a peninsula is and that this region includes cities such as San Francisco, San Mateo, Burlingame, Redwood City, etc.

Have students label and identify the **Pacific Ocean**, where the Bay's salt water comes from. Ocean water flows through the opening into the bay. **The Golden Gate Bridge** is located at this opening. Have students add it to their maps. Also explain that San Francisco Bay is an estuary—a place where rivers and ocean meet, mixing fresh and salt water.

Other Bridges Over the Bay

Ask students how many bridges are over the bay. (There are seven bridges.) Have them include as many as you think are relevant. Make sure the **San Francisco—Oakland Bay Bridge** includes a connection with **Yerba Buena Island** which is visible on the map. The other six bridges are:

- Richmond—San Rafael Bridge
- San Mateo—Hayward Bridge
- Dumbarton Bridge
- Carquinez Bridge
- Benicia—Martinez Bridge
- Antioch Bridge

You may want to include other items on the map as you see fit. Remember that exact location is not as important, as an overall feel for the region.

Additional Activities

- Incorporating Maps into Other Lessons
- English/Language Arts Lessons: Students can create maps for places within a story or novel you are reading. They can use maps to become familiar with the story's setting.
- History/Social Studies: Use maps to show where events have taken place. Also use maps that give information about population distribution and/or density, historical developments, settlements across regions, etc. that relate to what you are studying.
- Science: Use maps that show climate and temperature trends, land use and resources, land elevations, vegetation/forests in a region, etc.
- Math: Use mileage scales to estimate distances, use latitude and longitude to identify where places are located, understand time zones around the world, etc.

