



SEYMOUR CENTER AT LONG MARINE LABORATORY

“What is Science?” (Orange Pod) Chaperone Facilitated Activities (Grades 5 – 8)

Marine scientists are good observers. If you watch something closely, you can see all kinds of things you never knew. Let’s explore how scientists look carefully...

Observing elephant seals

1. Ask students to find the elephant seal video in the Orange Pod.
2. **Read this to your students:** UC Santa Cruz scientists and students have spent many years observing and studying elephant seals 20 miles north of Santa Cruz. Let’s find out some of what they’ve observed and learned.
3. Tell students that while they’re watching the short elephant seal video, they should pay attention to what types of things they might see or observe at Año Nuevo where the elephant seals haul out twice a year.
4. After the video, ask the group to give examples of what things they might observe elephant seals doing at Año Nuevo. Possible answers include: male bluff noises, nursing, giving birth, mating, diving, males moving quickly, fights between males, etc.
5. Ask the students to find the turning metal drum and find out what you could see this month if they went to visit Año Nuevo.
6. Look for the computer screen titled “Live from Año Nuevo.” This links to a camera located at Año Nuevo. Can you spot any elephant seals? They often look like long rocks lying next to each other on the beach so look carefully. How many can your team spot?

Tools to observe

1. **Read this to your students:** Your mission is to look at the displays in the Orange Pod for 2-3 different tools that scientists used to help them observe. Also, figure out how they might use each of the tools to help observe and collect data. You have three minutes, then we’ll discuss the tools you found.
2. When three minutes are up, have students volunteer to show the whole group the tools they found and discuss how they help scientists observe. Some examples you may find to discuss:
 - A. Stereoscope: helps scientists like Gary Griggs study photos in 3-D to look for changes in the land, like coastal erosion.
 - B. PVC squares with string grid (called a quadrat – pronounced KWA-drat): these quadrats make it easier for John Pearse and students to count the living things in a given square.