Earthquake Size:
What is earthquake magnitude? How is magnitude calculated (what three variables need to be known)? What is intensity? What affects intensity? Which one do people care about, which one do scientists care about, and why? What is a hypocenter or focus; and epicenter? What is the difference between earthquakes in California and Virginia? What are some of the largest earthquakes that we have recorded on seismometers? What is a Great earthquake? When is the last time there was a Great earthquake on the CSZ? Does the CSZ recurrence interval have a variation north to south, or is it the same everywhere? Are we overdue for a CSZ earthquake; where is this?

Tsunami!
What can cause a tsunami? What is the geological evidence for tsunami? What geological evidence is also found associated with tsunami deposits (e.g. along the Cascadia subduction zone)? What is the best way to avoid becoming a casualty during a tsunami (remember when I was talking about the mass of a cubic foot of water; how might this help you answer this question?)? What are some factors that control the size of a tsunami wave height? About how fast can a tsunami travel across the ocean (knots)? What plate boundaries might we associate with tsunami? What are some historic earthquakes that generated tsunami? Could you use the shallow water equation if you were given the equation and some data (solve for depth or velocity)? What is the difference between a tsunami inundation map and a tsunami evacuation map?

Coastal Hazards
What are the two types of shores and what are the factors that control their formation? Provide an example of each of these types of shores (geographic location). What are the steps that lead to the formation of marine terraces? What is an abrasion platform? What is longshore transport and how does it happen? What are littoral cells? What are the major components of a sediment budget? Provide some examples of these components for a sediment budget designed for a beach. Why are some beaches starved for sediment? What controls the size of waves? Draw some waves (like a sine wave) and label the parts of the wave (e.g. crest, etc.).
What is eustatic sea level and what are some factors that control it? What do oxygen isotopes (in sediments and ice cores) tell us about sea level? What is a proxy? The sea level has been changing for millions of years, has the sea level rise rate changed much in the 20th-21st centuries? Why or why not? What are some coastal hazards related to sea level rise? What are some ways that we mitigate for sea level rise (that may or may not work)? What are the three processes that control solar insolation? Do they have the same periodicity? When these three cycles are added together, what processes and factors have evidence that they respond to these same overlapping cycles (we looked at several data sets that have cycles that match these three major solar insolation cycles)?