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Geology

* Describe the Hazard
  + hazard
    - Earthquake, landslide, car wreck...)
  + risk
    - think like insurance agent
    - risk is the loss expected from a certain event and is expressed as a probability
  + vulnerability
    - gives an idea to how you may be affected locally
    - Types of people vulnerable
      * older people
      * hospitals
      * school kids
    - Some buildings more vulnerable than others...
* Earthquake insurance
  + $14 per month on 100k house
* Risk Assessment
  + A process used to identify hazards and determine risks. Can be applied to many activities from banking to geology
  + Purpose is to reduce impact of an accident or natural disaster (or poor investment) by understanding the risks and hazards
* Fault
  + Huge crack in the earth where movement or displacement happens or shifts
  + Faults cause earthquakes, earthquakes don't cause faults
* Earthquake
  + The energy builds up until it finally pops
* Seismic
  + Seismic is a general term to describe movement of energy/waves
  + Movement of the energy or waves is complex, but the energy can be described, measured, and sampled.
  + A seismograph is used to sample and measure the waves/energy
* Famous Earthquakes
  + Study historical earthquakes so we can learn from the past
  + we learn where they happen, how big they are, what types of buildings were affected
  + Learn what people can do to prepare
  + Chile in 1960 was a 9.5, the biggest ever
* Causes
  + The process repeats because the earth is dynamic
  + Stress builds to the break point at the fault
  + Stress builds as earth and plates move, but plates stuck at faults
  + The stress / energy is released by breaking rock at fault and also sending energy /EQ waves