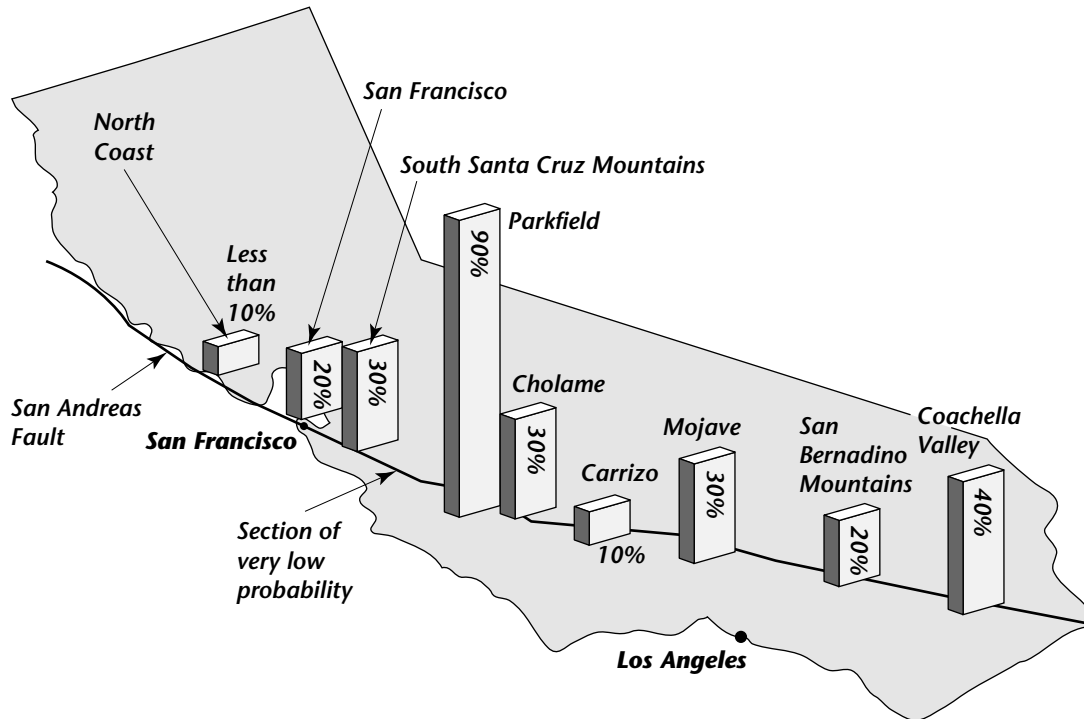


**Earthquakes** ▪ *Enrich*

# Earthquake Probability

This combined map and bar graph shows the probability of earthquakes in different areas along the San Andreas fault. Probability is a measure of how likely it is that some event will happen in a given time. A probability near 100 percent means that an event is very likely to happen. A probability near zero percent means that an event is very unlikely to happen.

**Earthquake Probability Along the San Andreas Fault**



**Earthquakes**

Use the figure above to answer the following questions. Write your answers on a separate sheet of paper.

1. Which area on the fault has the highest probability of an earthquake?
2. What is the probability of an earthquake in the North Coast area?
3. The fault section between the Santa Cruz Mountains and Parkfield has a very low probability. Geologists know that this area has experienced very little damaging seismic activity in the past. They also found that the blocks of rock in this section move slowly and continually. Why would slow, continual movement lead geologists to give the section a low probability?
4. What can you infer about why the probability of an earthquake is so high in the Parkfield area?
5. How do you think geologists learn about how the blocks of rock along a fault move?