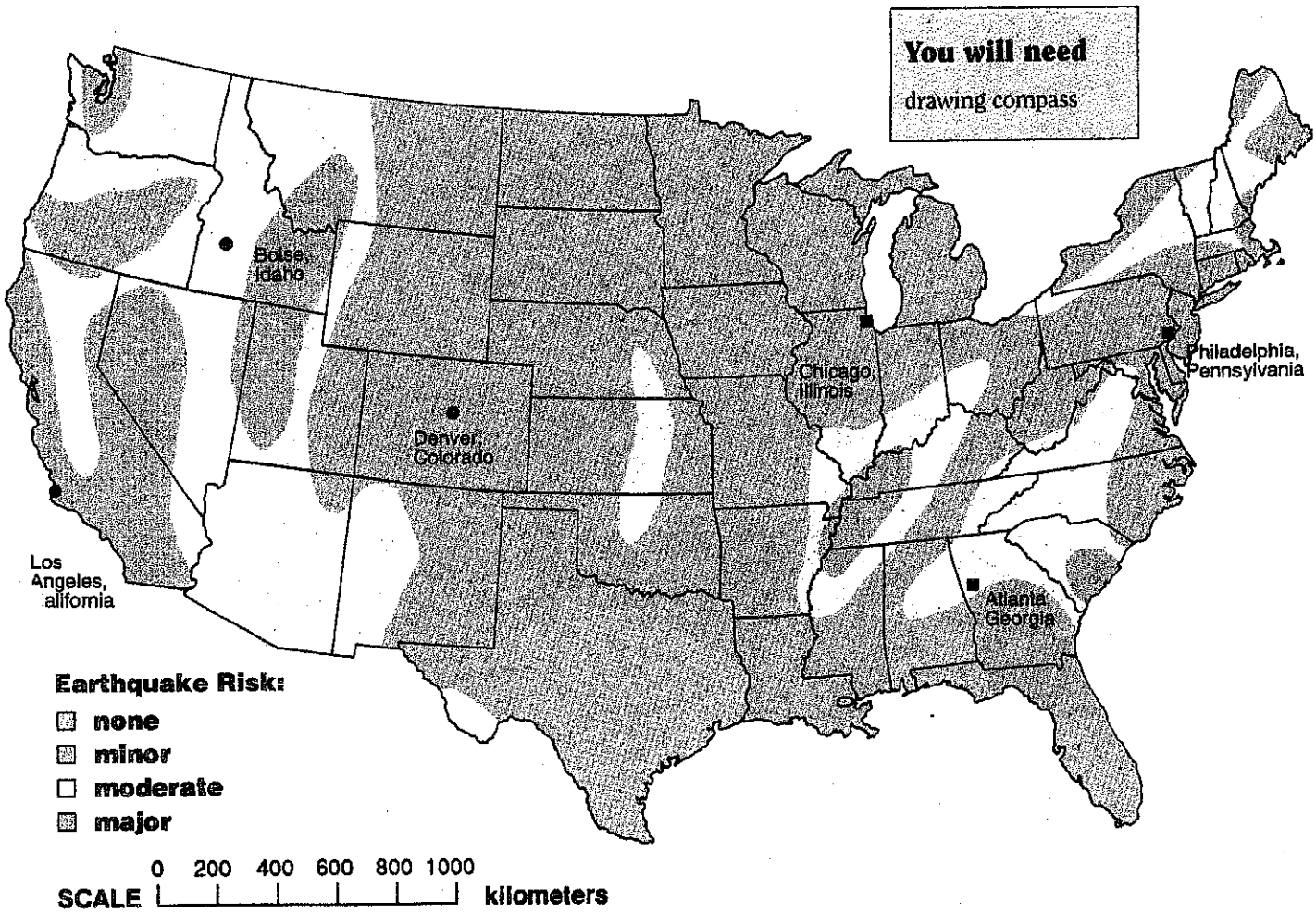
QUAKE QUEST!

When an earthquake happens, scientists can detect the earthquake on a seismograph. Scientists can tell the strength, or magnitude, of the earthquake and how far away it happened, but they cannot tell what direction the earthquake vibrations came from. In order to locate the earthquake, at least three seismographs in different places must detect the earthquake. Scientists then use a method called triangulation to locate the earthquake. Let's try it!



Seismographs in three different cities detected an earthquake at these distances from each city.

Boise, Idaho—600 kilometers Denver, Colorado—400 kilometers Los Angeles, California—1000 kilometers

Use your scale to open your compass to 600 kilometers. Place the point of your compass on Boise, Idaho and draw a circle on your map. The earthquake happened somewhere along that circle but you can't yet tell where. Now measure and draw circles for Denver (at 400 kilometers) and Los Angeles (at 1000 kilometers). Where the three circles intersect is where the earthquake actually happened. In what state is the epicenter of the earthquake? Why do you think scientists call this method triangulation?

Try another one! If the epicenter is 800 km from Philadelphia, PA, 400 km from Atlanta, GA, and 600 km from Chicago, IL, in what state is the epicenter? You and your adult partner can use your scale, map, and compass to make up your own **earthquake hunts!**