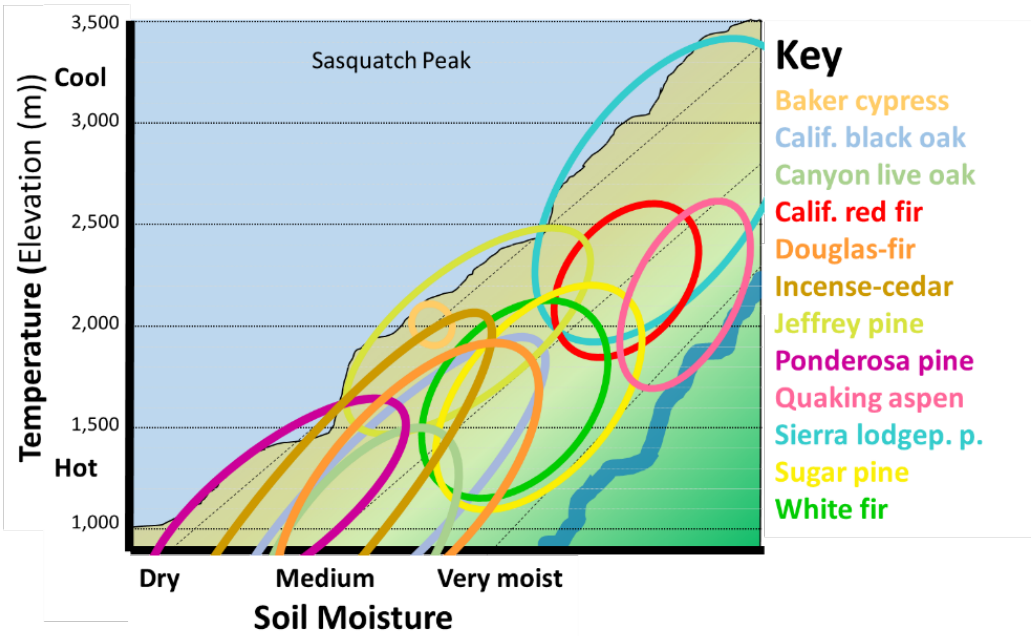
Answer Key:
Handout M14-2: Trees in a Changing Environment



1. Suppose you are a sugar pine living at a moist area at 1,800 m and your home gets a lot drier. Name two tree species that are not in your community now but might grow well there over the next 100 years: Any of these: Incense-cedar, Jeffrey pine, Baker cypress

2. Suppose you are a California red fir living at 1,900 m elevation and your home gets a lot warmer and drier. Are your seedlings likely to survive? No

3. Suppose you are a white fir living at 2,100 m elevation and your home gets a little warmer and wetter. A squirrel carries some of your seeds to 2,400 m elevation and drops them under an aspen tree. Are they likely to grow into mature trees? Why or why not? Their chances are mixed. Temperatures up at 2,400 m will probably be warm enough in the future, but aspen sites are already wetter than white fir likes. If the site gets even wetter, it might be hard for white fir seedlings to thrive. In addition, the odds that ANY seed will grow into a mature tree are very low.

4. Suppose you are an incense-cedar growing at 1,600 m elevation and your home gets drier. Are your seedlings likely to start growing under sugar pines? Why or why not? Incense-cedar seedlings might indeed start growing under sugar pines because the sites where sugar pines currently grow are likely to get drier. In addition, incense-cedar seedlings are pretty good at growing under the shade of mature trees, so the sugar pines should not inhibit growth.