



Exercise: 1

Instructions: Many forms of precipitation exist. In this exercise, you will learn about the mechanisms that produce the various types of precipitation. Specific conditions must exist in order for precipitation to occur; the presence of clouds does not guarantee precipitation. The conditions also determine which type of precipitation that may fall. By doing this exercise you will understand how conditions can influence precipitation.

1. In order for a cloud droplet to form and exist, _____ must exceed _____.
2. How can condensation occur when the relative humidity is below 100%?
3. What mechanisms beside condensation are important for precipitation to occur?
4. What is “Cloud seeding” and how does this process influence clouds?
5. What is the difference between rain, snow, and hail? How do these types of precipitation form? (Click on links at very top of Precipitation Patterns page)
6. How does sleet form?

Examine the map on the Precipitation Patterns page. Go up to the tool bar and click on “layers” (looks like a stack of papers). Remove all layers except ‘Idaho’ and then add them back one at a time, starting with 70-80 inches of rain, then 60-70 inches, and going all the way to zero.

7. Where does most of the precipitation occur in Idaho?
8. Did you notice a pattern that developed with respect to how much rainfall there was?
9. Why is there more rain in some areas compared to other areas?