

1. Create a new blank spreadsheet.
2. In column A, skip row 1. In row 2, enter “Rain Year 20xx.” (Replace xx with the two digits of the rain year.)
3. In column A, row 3, enter ETo (shorthand for Potential Evapotranspiration).
4. In row 1, use columns B-M, to enter the months of the year. You may enter October-September to match the rain year, or January-December to match the calendar year. (rename your “Rain Year 20xx cell” to “20xx” if you use January-December).
5. Identify which ETo zone your school is in by using the California evapotranspiration zones map.
6. Use the California evapotranspiration zones table to enter the monthly potential evapotranspiration amounts for your zone in row 3. Be sure to match the months carefully as the table data starts in January, but your first cell may be October.
7. Using the [California Department of Water Resources monthly precipitation reports](#), select the most recent complete rain year report, e.g., PRECIPOUT.2016. If the report doesn't have information for every month, choose the prior year. Hint: If the current month is January-September, select the previous year's report. PRECIPOUT reports list monthly rainfall totals from October 1 to September 30.
8. Locate the station nearest your school and enter the monthly precipitation totals (in inches) in row 2. Again, be sure to carefully match the months in the spreadsheet. If you chose to enter the months in calendar order rather than rain-year order, do not rearrange the months. You will need to get data from two consecutive precipitation reports to get 12 consecutive calendar months (e.g., January-September of Rain Year 2015 and October-December of Rain Year 2016).
9. Click and drag from cell A1 to M3 to select all cells containing data. Create a line chart. Depending on which software application students are using, there are multiple ways to do this. Add labels as necessary and format as desired.

Use the completed spreadsheet and graph to answer the following questions. You may answer here or enter and highlight the answers on your spreadsheet.

1. What is the total rainfall for the rain year selected?
2. What is the total potential evapotranspiration possible in one year for the zone selected?
3. What is the difference between the rainfall totals and the total potential evapotranspiration?
4. Was there a water surplus or water deficit for the entire rain year, and how much?
5. In which months if any was there a surplus of water? How much of a surplus was there in each of those months? What was the combined surplus of water for those months?
6. In which months if any was there a deficit of water? How much of a deficit was there in each of those months? What was the combined deficit of water for those months?