• Field Trip Background
• Water Resources Lecture
• Homework: Water Quiz. Test your knowledge about water and groundwater by taking the T/F water quiz below. To help you with the answers, check out the USGS Water Science for Schools website (http://ga.water.usgs.gov/edu/index.html) (15 pts)

Water Quiz
☐ True  ☐ False   (1) Water contracts (gets smaller) when it freezes.
☐ True  ☐ False   (2) Water has a high surface tension.
☐ True  ☐ False   (3) Condensation is water coming out of the air.
☐ True  ☐ False   (4) More things can be dissolved in sulfuric acid than in water.
☐ True  ☐ False   (5) Rainwater is the purest form of water.
☐ True  ☐ False   (6) It takes more energy to heat water at room temperature to 212° F than it does to change 212° F water to steam.
☐ True  ☐ False   (7) If you evaporate an 8-inch glass full of water from the Great Salt Lake (with a salinity of about 20% by weight), you will end up with about 1 inch of salt.
☐ True  ☐ False   (8) Sea water is slightly more basic (the pH value is higher) than most natural fresh water.
☐ True  ☐ False   (9) Raindrops are tear-shaped.
☐ True  ☐ False   (10) Water boils quicker at Denver, Co. than at the beach.

What is the correct proportion of freshwater to saltwater
A) 1.5 : 98.5
B) 2.8 : 97.2
C) 5.4 : 94.6
D) 10.1 : 89.9
E) 21.3 : 78.7

What are the volume percentages of sources freshwater?
Surface Water  _____%
Ground Water  _____%
Ice Cap / Glaciers  _____%
Vapor  _____%
Ground Water Quiz

True  False  (1) The water table is the altitude (below ground) where the water level in a well will rise to when the well taps a confined aquifer.

True  False  (2) If you ate canned corn last night, there is a good chance that it was irrigated with ground water.

True  False  (3) Land subsidence occurs in areas underlain by highly-fractured granite, which is readily dissolved by moving ground water, especially when the water is slightly acidic.

True  False  (4) Water can flow in streams even during periods of drought due to ground water seeping into the streambanks.

True  False  (5) Artificial recharge to an aquifer can occur when people inject water down into a well to force it back into an aquifer so they can withdraw it later.

True  False  (6) Big cities drill deep wells to tap naturally heated water because the heat kills bacteria and the water needs less treatment.

True  False  (7) Bottled water often is advertised as "artesian well water." Artesian water is ground water that is naturally filtered by an aquifer composed of fine, porous material—this artesian water can be put directly into bottles.

True  False  (8) The heaviest users of ground water for drinking water and other public uses are the Southwest desert States, where surface water is scarce.

True  False  (9) The porosity and permeability of an aquifer define its ability to yield water to wells in productive amounts.

True  False  (10) For some wells along the coastline that are drilled into porous aquifers, pumps are turned off twice a day (during periods of high tides), since tides temporarily raise saline ground-water levels, causing saltwater intrusion into freshwater aquifers.

True  False  (11) Cities prefer to use ground water for drinking-water supplies because surface water is in constant contact with streambeds and, thus, contains a higher concentration of dissolved minerals and other substances that must be removed.

True  False  (12) Excessive pumping of a well can reverse the natural flow of ground water into a river, causing the water level in the river to fall.

True  False  (13) Most wells are shallow because a significant amount of water cannot be obtained from wells deeper than about 1,000 feet. This is because it is difficult for pumps to overcome the force of gravity and push water up to the land surface.

True  False  (14) The most productive wells tap large open areas in subsurface rocks, including horizontal fissures, caverns, and lava tubes, which have connections to the land surface, thus allowing the aquifer to be quickly recharged by precipitation.

True  False  (15) A cone of depression occurs when you drop your scoop of ice cream (made with ground water) on the ground on a hot summer day.