Instructions: Write out short answers to each of these questions on this answer sheet in the space provided. Each answer should be just two or three sentences at most. Note that there are 8 questions in this assignment, including several on the back side of the sheet. Look in your textbook, view the book's CD, or check out the text's or the course web site for help in finding the answers. Be sure your answer sheet has your name and ID on it.

1. What is the difference between the saturated zone and the unsaturated zones of an aquifer? What is the definition of the water table?

2. If radioactive waste were discovered to have leaked into groundwater from a nuclear processing plant, what kind of information would you need to predict the length of time for radioactivity to appear in well water 10 kilometers from the plant?

3. How do braided and meandering streams differ? Which type is more common in the Phoenix area? Why?

4. If global warming produces a significant rise in sea level as polar ice melts, how will the longitudinal profiles of the world's rivers be affected?
5. Taking risks and benefits into consideration, rank according to relative importance all the forms of fossil fuels and explain how their ranking might change by the end of the 21st century? List the risks and benefits of each type of fuel.

6. Contrast the process of ore formation in the sediment and crust of the deep sea with that in a convergent plate boundary zone.

7. List three causes of climate change that result from interactions between Earth’s internal and external systems?

8. Make a list of human activities that have negative effects on the Earth's atmosphere and hydrosphere?