Introduction to Water Chemistry Worksheet

Vocabulary Definitions
1. contamination: The presence of a minor component in another chemical or mixture.
2. purification: To make something pure or to cleanse.
3. remediation: To correct something that has gone bad or defective.

Questions
1. List three processes that happen during the water cycle:
   - condensation
   - evaporation
   - infiltration
   - sublimation
   - precipitation
   - evapotranspiration

2. List three large-scale methods for purifying drinking water:
   - reverse osmosis
   - ultra-filtration
   - electro-deionization

3. Describe how activated carbon works:
   As contaminants pass through the activated carbon, they adsorb onto the pores so only clean water passes through.

4. List five major sources of water contamination:
   - leaking sewage
   - underground fuel storage tank leaks
   - pesticides
   - landfills and dumps
   - industrial waste

5. Of the three remediation options discussed in the presentation (pump-and-treat, permeable reactive barrier, and nanoparticle injection), which do you think is the best and why?
   This is more of an opinion than a right or wrong answer. There are advantages and disadvantages to all of the different methods.