

Unit 3 Test Review

Water

- List the sources of fresh water
- What percentage is available for human consumption?
- Describe the dilemma with our fresh water reserves: benefits and drawbacks to using a particular fresh water source (surface water, dams, groundwater, irrigation, glaciers).
- How might global warming affect fresh water reserves?
- Describe CA water situation: sources, drawbacks (salination, cost, supply, politics)
- Water Shortages: causes, effects, methods to decrease water shortages, example of water shortage crisis other than southern Ca.
- Flooding: Causes, effects, ways to decrease flooding, example of flooding
- Describe toilet to tap: what must be done, benefits and drawbacks
- What is the difference between point vs. nonpoint source pollution? Give an example of each.
- For the following qualities, list the importance of, natural and anthropogenic pollution sources, and the effect of disrupting this quality: turbidity, temperature, pH, DO, nitrogen, and salinity. Use cultural eutrophication in your answer.
- What is bioaccumulation and biomagnification? Give an example of a substance that bioaccumulates and is biomagnified and explain why this occurs.
- What is an oxygen sag curve? Describe the different zones: clean, decomposition, septic, recovery, clean zones
- Describe the 8 common categories of pollutants of water: types, sources, and effects on the environment/people, and ways to decrease/clean up this pollutant
- For the following, what are the sources and effects the ecosystem/organisms: organohalogens, copper sulfate, lead, mercury, chlorine, sediment, E. coli, Coliform bacteria, nitrates/phosphates, oil, fluoride, radon)
- Describe water treatment: what occurs at each level and what is actually removed at each level.
- For the following qualities, list the importance of, natural and anthropogenic sources of, and the effect of disrupting this quality within the water: turbidity, temperature, pH, DO, BOD, nitrates, and salinity.

Toxicity

- What is a poison? Give three examples, their sources & effects
- What is LD50? What is a dose response curve?
- What is a threshold vs. nonthreshold view?
- Describe how dilution is the solution to pollution.
- Describe the parameters to determine toxicity
- Describe the different classes of toxic substances: mutagen, carcinogen, teratogen
- In terms of biological factors causing human harm, give an example, the source, how it is transmitted, and symptoms of tuberculosis, malaria, West Nile Virus, Avian Bird flu, Influenza, HIV, SARS, schistosomiasis,
- In terms of chemical factors causing human harm, give an example, the source, symptoms of: carbon monoxide, formaldehyde, ozone, BPA, DDT, phthalates
- In terms of cultural factors causing human harm, give an example, the effects of, and methods of reducing: unsafe working conditions, smoking, alcohol, driving,
- In terms of physical factors causing human harm, give an example (location), effects, and methods of reducing harm for: earthquakes, volcanoes, hurricanes, fire
- What density dependent and density independent factors increase the transmission of the disorders listed above?

Laws

1) Clean Water Act; 2) Safe Drinking Water Act; 3) Resource Conservation and Recovery Act; 4) Comprehensive Environmental Response, Compensation, and Liability Act; 5) Federal Insecticide, Fungicide, and Rodenticide Control Act;