

Environmental Science Chapter 12 + 13 Review Sheet

Student will be able to define and apply the following terms:

air pollution	primary pollution	secondary pollution	smog
temperature inversion	VOC	sick building syndrome	asbestos
decibel	acid precipitation	pH	acid shock
hybrid vehicle	hydrogen power	Zero emission vehicle	radon
acidification	electric vehicle	climate	latitude
El Niño	La Niña	Coriolis effect	wind
prevailing wind	trade wind	westerlies	polar easterlies
ENSO	Pacific Decadal Oscillation	solar maximum	equinox
Solstice	ozone	ozone layer	Ozone hole
chlorofluorocarbons (CFCs)		polar stratospheric clouds	melanoma
greenhouse gases	Global warming	Kyoto protocol	greenhouse effect
energy conservation	fossil fuels	electric generator	Petroleum
oil reserves	energy efficiency	nuclear fission	nuclear fusion
nuclear energy	Renewable	passive solar heating	active solar heating
geothermal energy	Alternative energy	ocean thermal energy conversion	nonrenewable

Students will answer questions that require them to do the following:

- List the 5 different primary air pollutants and what the primary source for these pollutants are
- Describe the Clean Air Act and how it has affected vehicle emissions
- Describe the two different kinds of particulates and also where they can be found
- List ways that you can improve the gas mileage for your vehicle
- Describe the California Zero-Emission Vehicle program
- Describe the sources for Industrial Air pollution and compare/contrast scrubbers vs. electrostatic precipitators
- Describe the short-term and long-term effects of air pollution on health
- List sources that can contribute to indoor air pollution
- Describe the effects of asbestos on human health
- List the sources of noise pollution and light pollution and what can be done to reduce the effects of both
- List the sources for acid rain and describe how it effects aquatic ecosystems, humans, soil and plants.
- Describe what pH is and what the values mean.
- Compare/Contrast the different types of energy sources and the advantages/disadvantages of each
- Compare/Contrast the different types of fuel efficient or alternative fuel vehicles available
- Describe the factors that affect a region's climate and also what the most important factor is
- Describe the 3 important properties of air and how they affect climate
- Describe where cold air sinks and warm air rises when discussing global air circulation patterns
- Compare/contrast/describe how an El Niño and a La Niña forms and their affects on climate
- Describe how solar flares and volcanoes can affect global climate
- Describe how the ozone layer was originally formed on the earth
- Describe the effect of a CFC molecule on ozone particles and list the types of products that contain CFCs
- Describe the history behind the discovery of the ozone hole and also what steps were taken to prevent its expansion
- List the types of products that contain CFCs
- Describe the effects of ozone thinning on plants, animals, and humans and what humans can do for themselves to prevent skin cancers and melanoma
- List the major greenhouse gases, their source, and which two gases account for most of the absorption of heat in the atmosphere
- List the effects that continued global warming would have on our planet
- Describe our nation's response to the issue of global warming and our reasons for that response
- List the factors that influence the value of a fuel
- Describe the different methods for generating electricity and the advantages/disadvantages of each.
- List 3 factors that influence predictions of fossil fuel use.
- Compare/contrast passive solar heating, active solar heating, and photovoltaic energy.
- Describe the differences in biomass fuel use between developed and developing nations
- Compare/contrast energy efficiency and energy conservation and list ways you can conserve energy