

Open Notes Quiz Unit 2

Key

1. Fill out the missing information in the diagram below relating to traditional energy sources.

Energy Source	Renewable?	Where does it come from?	How is it collected?	Negatives
Wood	Yes	Forests/Land Biomes	Harvested	Burning creates more CO ₂ and warms the climate
Peat	Yes	Decaying plant matter	Harvested and dried	Burning creates more CO ₂ and warms the climate
Coal	No	Fossilized swampy plants	Mined	Burning creates more CO ₂ and warms the climate
Petroleum	No	Fossilized plankton	Drilling	Burning creates more CO ₂ & warms climate
Natural Gas	No	Fossilized plankton	Drilling and Fracking	Burning creates more CO ₂ and warms the climate
Uranium	No	Naturally occurring element in soil and rock	Mining	Radioactive, Nuclear waste, Health concerns, Cancer, etc.

- How does coal form? What does it become (that can be used for fuel) before it becomes coal?
 from prehistoric plants that sink to the bottom of swamps & form peat. Over time it is converted to coal.
- Choose one of the following environmental issues listed: coal mining, uranium mining, fracking, or oil spills and tell me what the environmental impacts and dangers are.
 Answers vary.
- What is the biggest source of manmade climate change?
 Carbon Emissions from burning fossil fuels
- What are three sources of natural climate change?
 Volcanic eruptions, ~~ocean circulation~~, ocean circulation, solar activity.
- How can we reduce our impact on climate change?
 Reduce use of fossil fuels, buy carbon credits, use alternative energy sources.

7. Fill out the diagram below relating to alternative energy sources.

Energy Source	Renewable?	Where Is It found?	How is it collected?	Negatives
Biomass	Yes	grown in fields in crops	harvesting	Burning creates more CO2 and warms the climate
Hydrogen	Yes - It can be	Comes from other molecules	Come from other renewable resources or breaking down other molecules	Has to be made from other compounds
Nuclear Fusion (using uranium)	No	Uses uranium which naturally occurs in soil and rock	mining, uranium & fusing the nuclei in a reactor	intense radiation, radioactive, expensive
Nuclear Fission (using uranium)	No	Uses uranium which naturally occurs in soil and rock	Mining the splitting the nuclei in a reactor	expensive, radiation, radioactive for years, threat of meltdown
Hydroelectric	Yes	From falling water from behind dams	Dammed water is released as needed	Floods and destroys habitats and kills animals, cuts off water supply upstream
Tidal	Yes	From water flowing over turbines found in a dam	Dammed water flowing in and out with tides	Expensive and may prevent access to animals
Geothermal	Yes	Underground reservoirs of steam	Harnessed from steam through pipes used to turn turbines	Expensive and only usable in specific locations
Wind	Yes	Everywhere the wind blows	By huge turbines that turn in the wind	Noise Pollution, Negative Health Effects

8. What is the difference between the greenhouse effect and global warming?

Greenhouse - natural warming of lower atmosphere & surface. Global warming is caused by an increase of CO2 levels causing an increase in temp. - unnatural process

9. Fill out the missing information with examples of carbon sources (where more carbon is released than is absorbed).

Carbon Source (More Carbon Released) Natural or Manmade	Carbon Sinks (More Carbon Absorbed)
Burning Fossil Fuels	Ocean
Deforestation	Forests
Wetland Destruction	Wetlands

Any of these {
 Volcanic Eruption
 Wildfires
 Organic Combustion/
 Decomposition