

Earth Science Test: Human Impacts

_____ 1. Parks and green spaces help reduce

- a. nitrogen. b. runoff. c. landfills. d. mining.

_____ 2. Deforestation results in more

- a. nitrogen in the biosphere. b. carbon dioxide in the atmosphere.
c. oxygen in the atmosphere. d. water vapor in the geosphere.

_____ 3. Which is NOT a direct consequence of rising ocean temperatures?

- a. coral bleaching b. sea ice melting c. rising sea level d. shells dissolving

_____ 4. How do human activities promote the development of dead zones in lakes and oceans?

- a. Runoff from lawns and farms provide nutrients to algae.
b. Algae populations increase due to sedimentation from construction activities.
c. Ocean acidification due to excess carbon dioxide causes an increase in algae.
d. Large amounts of plastic waste that wash into the ocean provide a habitat for algae populations.

_____ 5. Which has a negative impact on land

- a. composting b. mining c. reclamation d. reforestation

_____ 6. Which has a positive impact on land?

- a. composting b. deforestation c. mining d. urbanization

_____ 7. What is the development of land for houses and other buildings near a city called?

- a. composting b. mining c. ruralization d. Urbanization

_____ 8. Which of the following is a primary benefit of a sanitary landfill compared to an open dump?

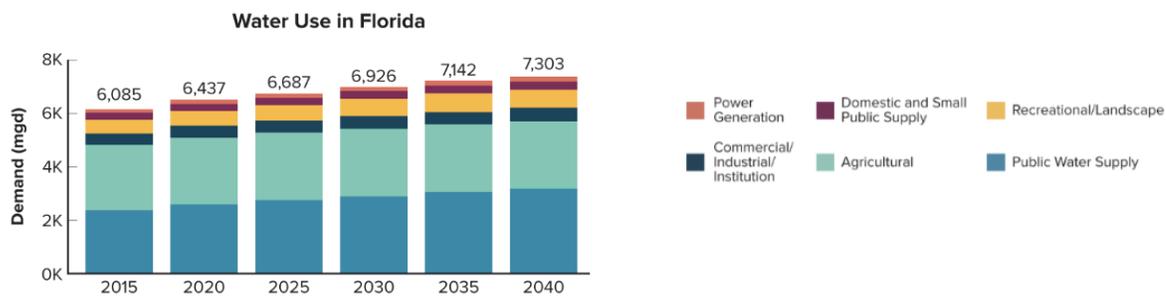
- a. Reduced risk of groundwater contamination due to liners and leachate collection systems.
b. Lower cost of waste disposal.
c. Easier access for scavenging animals.
d. Faster decomposition of organic waste.

_____ 9. Which of the following best describes a primary advantage of nuclear power compared to fossil fuels in terms of environmental impact?

- a. Nuclear fuel is readily available and inexpensive, making it a cost-effective energy source.
- b. Nuclear power plants produce significantly less greenhouse gas emissions during electricity generation.
- c. Nuclear waste disposal is a straightforward and environmentally safe process.
- d. Nuclear power plants have a minimal impact on local ecosystems.

_____ 10. The human activity of overdrawing groundwater can deplete aquifers, resulting in

- a. surface water pollution
- b. land subsidence
- c. sedimentation
- d. excess groundwater



_____ 11. The graph above shows how water use is projected to rise in Florida over the next two decades. Which route of consumption is projected to increase the most over this period?

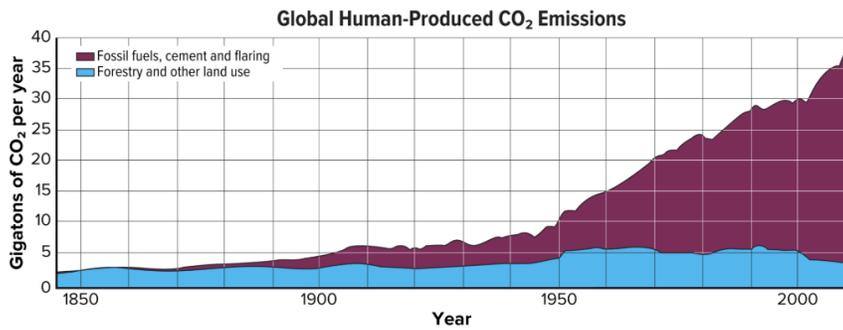
- a. Recreational/Landscape
- b. Power Generation
- c. Agricultural
- d. Public Water Supply

_____ 12. Which statement describes how human activities, including releasing greenhouses gases, deforestation, and urbanization, can influence climate?

- a. Releasing greenhouses gases, deforestation, and urbanization increase the amount of carbon dioxide in the atmosphere, causing global temperatures to decrease.
- b. Releasing greenhouses gases, deforestation, and urbanization increase the amount of carbon dioxide in the atmosphere, causing global temperatures to increase.
- c. Releasing greenhouses gases, deforestation, and urbanization decrease the amount of carbon dioxide in the atmosphere, causing global temperatures to increase.
- d. Releasing greenhouses gases, deforestation, and urbanization decrease the amount of carbon dioxide in the atmosphere, causing global temperatures to decrease.

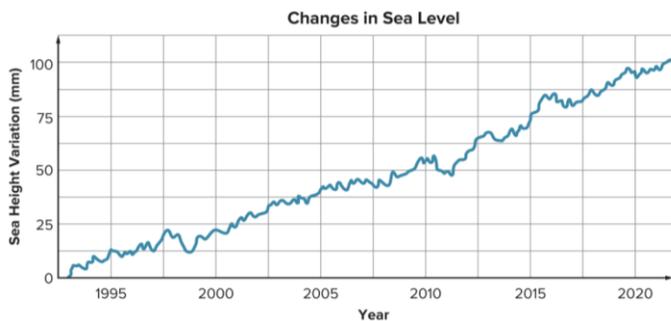
_____ 13. Which outcome is NOT a likely environmental problem related to urbanization?

- a. increase in waste production
- b. increased use of mass transportation
- c. Pollution of water supplies near the city
- d. Loss of forests or other natural habitats for wildlife



_____ 14. Examine the graph. What trend do you observe in the graph? How does this influence climate?

- a. CO₂ emissions from deforestation and other land uses has decreased dramatically since 1950. This causes the climate to become colder.
- b. CO₂ emissions from fossil fuels, cement, flaring, and deforestation and other land use has remained constant since 1850. This does not affect climate.
- c. CO₂ emissions from fossil fuels, cement, and flaring has increased dramatically since 1950. This causes the climate to become warmer.
- d. CO₂ emissions from fossil fuels, cement, and flaring has remained constant since 1850. This does not affect climate.



_____ 15. Based on the data from the graph above, what is the approximate change in sea level from 1995 to 2020?

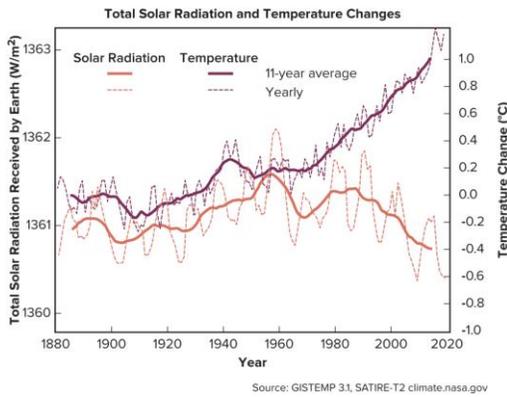
- a. 3 mm/year
- b. -6 mm/year
- c. -4 mm/year
- d. 8 mm/year

_____ 16. Compare the impact of greenhouse gas emissions released by humans burning fossil fuels and greenhouse gas emissions released by volcanoes on modern climate.

- a. Humans release much less greenhouse gases than volcanoes. Volcanoes impact climate more than humans.
- b. Humans and volcanoes release a similar amount of greenhouse gases and impact climate about the same.
- c. Volcanoes release less greenhouse gases and impact climate more than humans.
- d. Humans release more greenhouse gases and impact climate more than volcanoes.

_____ 17. Which of the following parts of the carbon cycle happens in short periods of time?

- a. photosynthesis
- b. formation of rocks
- c. formation of soil
- d. formation of fossil fuels

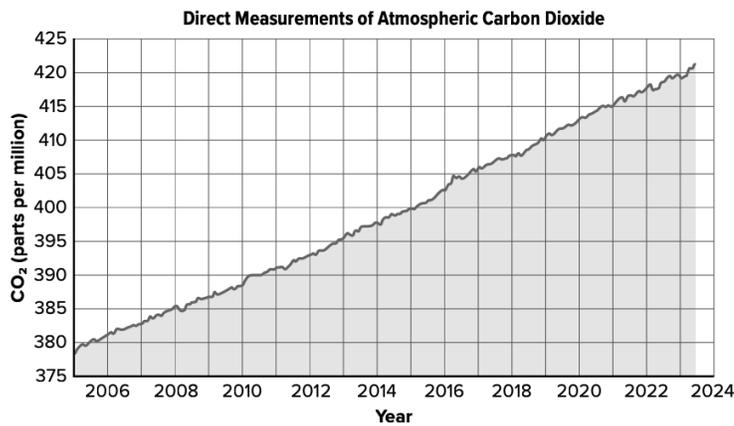


_____ 18. What conclusions about solar activity and temperature can you draw from the graph above?

- a. It is likely that the sun has caused the observed global temperature warming trend.
- b. It is likely that the sun has caused the observed global temperature cooling trend.
- c. It is unlikely that humans have caused the observed global temperature warming trend.
- d. It is unlikely that the sun has caused the observed global temperature warming trend.

_____ 19. Which is **one** reason that people rebuild degraded coastal marshes?

- a. to provide more land for development
- b. to increase water supplies for nearby cities
- c. to establish a better habitat for marine animals
- d. to reduce emissions of greenhouse gases



_____ 20. Which question would **best** identify evidence of the effect atmospheric CO₂ has on global warming?

- a. Why are atmospheric carbon dioxide levels increasing?
- b. What is happening to levels of other greenhouse gases?
- c. How do scientists gather data about levels of carbon dioxide?
- d. How did global temperatures change over the same period?