

Term

19 of 37

What is carbon offsetting?

- ☐ Increasing industrial production to boost CO₂ levels.
- ☐ Supporting initiatives that release CO₂ into the atmosphere.
- ☐ Funding projects that enhance fossil fuel extraction.
- ☐ Compensating for emissions by funding projects that reduce or capture CO₂.

Term

20 of 37

How does increased CO₂ affect global climate?

- ☐ It stabilizes weather patterns and reduces ice melt.
- ☐ It causes colder winters and more frequent snowstorms.
- ☐ It leads to decreased temperatures and increased rainfall.
- ☐ It leads to higher temperatures, melting ice, and changing weather patterns.

Term

21 of 37

What are some consequences of increased greenhouse gases on ecosystems?

- ☐ Increase in biodiversity, stable weather patterns, and expanding forests.
- ☐ Changes in species distribution, coral bleaching, and melting glaciers.
- ☐ Growth in agricultural productivity, enhanced air quality, and rising sea levels.
- ☐ Decrease in ocean acidity, expansion of ice caps, and improved soil health.

Term

22 of 37

How does the greenhouse effect relate to the carbon cycle?

- ☐ CO₂ is a gas that cools Earth's atmosphere.
- ☐ CO₂ is a nutrient that enriches soil fertility.
- ☐ CO₂ is a pollutant that reduces air quality.
- ☐ CO₂ is a greenhouse gas that influences Earth's temperature.

Term

23 of 37

What is respiration?

- ☐ The absorption of carbon dioxide and water to create energy.
- ☐ The process by which organisms produce oxygen and glucose from sunlight.
- ☐ The conversion of energy into oxygen and water.
- ☐ The process by which organisms convert oxygen and glucose into energy, releasing CO₂ (carbon dioxide).

Term

24 of 37

Why is the enhanced greenhouse effect a concern?

- ☐ It enhances ecosystem health, promoting biodiversity.
- ☐ It reduces sea levels, preventing coastal flooding.
- ☐ It stabilizes global temperatures, leading to milder climates.
- ☐ It accelerates global warming, leading to climate change impacts such as rising sea levels, extreme weather, and ecosystem disruption.

Term

25 of 37

What are the four spheres of Earth?

- ☐ The atmosphere (air), biosphere (plants), lithosphere (water), hydrosphere (minerals).
- ☐ The atmosphere (wind), biosphere (fungi), geosphere (mountains), hydrosphere (oceans).
- ☐ The atmosphere (air), biosphere (living organisms), hydrosphere (water), geosphere/ Lithosphere (land and rocks).
- ☐ Solar, wind, hydro, and geothermal energy.

Term

26 of 37

What is landfill?

- ☐ Water treatment plants that purify wastewater.
- ☐ Recycling centers that process recyclable materials.
- ☐ Waste disposal sites that produce methane during decomposition.
- ☐ Energy storage facilities that produce renewable energy.

Term

27 of 37

What is ocean acidification?

- ☐ The increase in ocean salinity due to evaporation.
- ☐ The rise in ocean temperature caused by thermal pollution.
- ☐ The decrease in ocean pH caused by increased CO₂ dissolving in seawater.
- ☐ The thickening of ocean layers due to sediment accumulation.

Term

28 of 37

What is diffusion in the context of the Carbon Cycle?

- ☐ The transfer of Nitrogen from soil to the atmosphere.
- ☐ The exchange of water vapor between the atmosphere and land.
- ☐ The movement of Oxygen between the atmosphere and oceans.
- ☐ The movement of CO₂ between the atmosphere and oceans.

Term

29 of 37

What are feedback loops in the context of the carbon cycle?

- ☐ Processes that amplify or diminish climate effects, like melting permafrost releasing methane.
- ☐ Mechanisms that reduce greenhouse gases, like carbon capture technology.
- ☐ Cycles that enhance biodiversity, like reforestation projects.
- ☐ Processes that stabilize climate conditions, like increased photosynthesis.

Term

30 of 37

What is deforestation?

- ☐ The removal of trees that reduces carbon uptake and releases stored carbon.
- ☐ The harvesting of trees for sustainable timber production.
- ☐ The planting of trees that increases carbon uptake.
- ☐ The preservation of forests to enhance biodiversity.

Term

31 of 37

How does food production impact the Carbon Cycle?

- ☐ Agriculture and livestock absorb greenhouse gases from the atmosphere.
- ☐ Agriculture and livestock emit greenhouse gases like methane and CO₂.
- ☐ Food production reduces methane emissions through advanced technology.
- ☐ Livestock farming increases oxygen levels in the environment.

Term

32 of 37

What role do oceans play in the carbon cycle?

- ☐ They release oxygen and absorb Nitrogen.
- ☐ They absorb, store, and release CO₂.
- ☐ They produce methane and support plant growth.
- ☐ They store freshwater and regulate Temperature.

Term

33 of 37

What is the enhanced greenhouse effect?

- ☐ The reduction in warming caused by reforestation efforts.
- ☐ The stabilization of Earth's temperature by cloud cover.
- ☐ The decrease in greenhouse gases due to natural processes.
- ☐ The increase in greenhouse gases due to human activities, leading to more warming.

Term

34 of 37

How does technology influence the Carbon Cycle?

- ☐ Use of technology reduces carbon emissions by promoting renewable energy.
- ☐ Technological advancements decrease reliance on fossil fuels.
- ☐ Technology enhances carbon storage in forests and oceans.
- ☐ Use of energy-intensive devices and reliance on fossil fuels increase carbon emissions.

Term

35 of 37

What are renewable energy sources that reduce carbon emissions?

- ☐ Solar, wind, hydro, and geothermal energy.
- ☐ Fossil fuels, biofuels, and synthetic gases.
- ☐ Petroleum, propane, methane, and biomass energy.
- ☐ Coal, oil, natural gas, and nuclear energy.

Term

36 of 37

What is photosynthesis?

- ☐ The process by which plants convert oxygen and water into energy.
- ☐ The release of carbon dioxide by plants into the atmosphere.
- ☐ The absorption of nutrients from soil by plants.
- ☐ The process by which plants convert CO₂ (carbon dioxide) and sunlight into oxygen and glucose.