Term 19 of 37

What is carbon offsetting?

- Increasing industrial production to boost CO_2 levels.
- Supporting initiatives that release CO_2 into the atmosphere.
- Funding projects that enhance fossil fuel extraction.
- Compensating for emissions by funding projects that reduce or capture CO_2.

Term 20 of 37

How does increased CO_2 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?

- CO_2 is a gas that cools Earth's atmosphere.
- CO_2 is a nutrient that enriches soil fertility.
- CO_2 is a pollutant that reduces air quality.
- CO_2 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 CO_2 (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 CO_2 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 CO_2 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 CO_2.
- 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 CO_2.
- 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 CO_2 (carbon dioxide) and sunlight into oxygen and glucose.