Name: Score:

37 Multiple choice questions

Term 1 of 37

What is weathering?

- The chemical breakdown of rocks that releases carbon.
- The mechanical erosion of rocks by wind and water.
- The physical breakdown of rocks by temperature changes.
- The formation of new rocks through volcanic activity.

Term 2 of 37

How does fashion impact the Carbon Cycle?

- Fast fashion increases textile waste and pollution, contributing to emissions.
- Fast fashion reduces textile waste and promotes recycling.
- Fast fashion supports carbon capture through sustainable practices.
- Fast fashion decreases pollution by using organic materials.

Term 3 of 37

What is the greenhouse effect?

- The stabilization of Earth's temperature by ozone depletion.
- The absorption of heat by oceans, reducing surface temperature.
- The warming of Earth's surface caused by greenhouse gases trapping heat.
- The cooling of Earth's surface due to solar radiation.

Term 4 of 37

What is combustion?

- The process of converting organic material into water and oxygen.
- The burning of organic material, releasing CO_2.
- The synthesis of organic material, storing CO_2.
- The decomposition of organic material, absorbing CO_2.

Term 5 of 37

What is carbon sequestration?

- The storage of CO_2 in plants for energy production.
- The conversion of atmospheric CO_2 into oxygen.
- The process of capturing and storing atmospheric CO_2.
- The process of releasing stored CO_2 into the atmosphere.

Term 6 of 37

How does the geosphere/ lithosphere influence the biosphere?

- Through control of water cycles and precipitation patterns.
- By influencing ocean currents and marine life distribution.
- Through regulation of atmospheric gases and weather patterns.
- Through soil formation and nutrient availability.

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Term 7 of 37

What is sedimentation?

- ○ The breakdown of sediments releasing carbon into the atmosphere.
- ○ The accumulation of sediments that can store carbon over time.
- ○ The dissolution of sediments in water, reducing carbon content.
- ○ The erosion of rocks that removes carbon from the cycle.

Term 8 of 37

What is the Carbon Cycle?

- ○ The process of nitrogen fixation In soil.
- ○ The exchange of oxygen between plants and animals.
- ○ The movement of carbon among Earth's spheres.
- ○ The cycling of water through Earth's systems.

Term 9 of 37

What are greenhouse gases?

- ○ Gases in Earth's atmosphere that cool the planet.
- ○ Elements that maintain a constant temperature on Earth.
- ○ Substances that block solar radiation from reaching Earth.
- ○ Gases in Earth's atmosphere that trap heat and regulate the planet's temperature.

Term 10 of 37

How can individuals reduce their impact on the carbon cycle?

- ○ Increasing meat consumption, using more electricity, and driving more.
- ○ Using more plastic, ignoring recycling, and wasting water.
- ○ Using public transport, reducing waste, conserving energy, and supporting sustainable practices.
- ○ Flying frequently, using single-use plastics, and increasing energy consumption.

Term 11 of 37

How does the enhanced greenhouse effect differ from the natural greenhouse effect?

- ○ The natural effect is driven by solar radiation, while the enhanced effect is caused by reduced ozone levels.
- ○ The natural effect is caused by industrial pollution, while the enhanced effect is due to volcanic activity.
- ○ The natural effect warms the planet excessively, while the enhanced effect maintains a stable climate.
- ○ The natural effect maintains a habitable climate, while the enhanced effect is caused by excess greenhouse gases from human activities, amplifying warming.

Term 12 of 37

What is methane's role in the carbon cycle?

- ○ Methane is a potent greenhouse gas produced during decomposition and by certain microbes.
- ○ Methane is a harmless gas that cools the atmosphere.
- ○ Methane is a rare gas produced only by volcanic activity.
- ○ Methane is a stable gas that does not affect climate.

Term 13 of 37

What is erosion?

- ○ The process that builds up rocks and sediments, storing carbon.
- ○ The process that breaks down rocks and sediments, releasing stored carbon.
- ○ The process that stabilizes soil and prevents carbon release.
- ○ The chemical reaction that transforms carbon into minerals.

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Term 14 of 37

How does water movement in the hydrosphere affect the atmosphere?

- ○ The burning of organic material, releasing CO_2.
- ○ Through soil formation and nutrient availability.
- ○ Through evaporation and precipitation.
- ○ The movement of CO_2 between the atmosphere and oceans.

Term 15 of 37

What is decomposition?

- ○ The absorption of carbon from the atmosphere into soil.
- ○ The synthesis of organic matter, storing carbon in plants.
- ○ The conversion of carbon into solid minerals.
- ○ The breakdown of organic matter, releasing carbon as CO_2 or methane.

Term 16 of 37

What are fossil fuels?

- ○ Renewable energy sources like solar and wind power.
- ○ Coal, oil, and natural gas formed from ancient organic matter.
- ○ Synthetic fuels made from non-organic materials.
- ○ Biomass fuels derived from plant matter.

Term 17 of 37

What is methane, and why is it significant?

- ○ A harmless gas produced by industrial processes.
- ○ A stable gas that does not affect the environment.
- ○ A cooling gas released by ocean organisms.
- ○ A potent greenhouse gas produced by decomposing organic matter and livestock.

Term 18 of 37

How do Earth's spheres interact?

- ○ They maintain separate systems with no influence on each other.
- ○ They isolate energy and matter, preventing any exchange.
- ○ They compete for resources without interaction.
- ○ They exchange energy, matter, and influence each other's processes.

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.

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