

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Decoupling Growth: High School Sustainability Systems Quiz

Learners synthesize the Triple Bottom Line and Life Cycle Analysis to solve complex geopolitical and ecological resource scarcity challenges.

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**1. A nation implements a 'Circular Economy' mandate requiring manufacturers to design products for disassembly and remanufacturing. This strategy primarily targets which specific sustainability metric?**

- A. Maximizing Gross Domestic Product (GDP) growth
- B. Decoupling economic growth from resource consumption
- C. Increasing the velocity of consumer spending
- D. Encouraging planned obsolescence in tech sectors

**2. The concept that considers the social, environmental, and financial outcomes of a business to measure its total success is known as the \_\_\_\_\_.**

- A. Product Lifecycle Management
- B. Ecological Footprint Index
- C. Triple Bottom Line
- D. Carbon Sequestration Ratio

**3. Intergenerational equity suggests that the current generation has a moral obligation to ensure future generations have access to the same level of natural capital.**

- A. True
- B. False

**4. In the context of the 'Tragedy of the Commons,' what is the most effective systemic solution for managing a shared groundwater aquifer used by competing industrial farms?**

- A. Allowing each farm to extract as much as needed to maximize exports
- B. Implementing 'command and control' regulation or tradable permits
- C. Relying on voluntary reductions without oversight
- D. Subsidizing deep-well drilling to access lower water tables

**5. When a company spends more time and money marketing itself as environmentally friendly than on actually minimizing its impact, the practice is called \_\_\_\_\_.**

- A. Systems Thinking
- B. Greenwashing
- C. Ecolabeling
- D. Biomimicry

**6. Which of these represents a 'Cradle-to-Cradle' approach in industrial design?**

- A. Incinerating plastic waste to generate heat for factories
- B. Using biodegradable materials that return nutrients to the soil

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- C. Downcycling high-grade aluminum into lower-grade scrap
- D. Moving production to countries with lower environmental standards

**7. The 'Precautionary Principle' advises that if an action or policy has a suspected risk of causing harm to the public or the environment, the burden of proof that it is NOT harmful falls on those taking the action.**

- A. True
- B. False

**8. The total area of land and water required to provide the resources a person consumes and to absorb their waste is their \_\_\_\_\_.**

- A. Carbon Credit
- B. Biocapacity Quotient
- C. Ecological Footprint
- D. Trophic Level

**9. How does 'Life Cycle Assessment' (LCA) assist in sustainable decision-making?**

- A. It calculates the quickest way to liquidate natural assets for profit
- B. It evaluates the environmental impact of a product from raw material extraction to disposal
- C. It focuses exclusively on the emissions produced during the shipping phase
- D. It determines the retail price of a product based on current market demand

**10. Economic sustainability is achieved when a society focuses solely on maximizing the profit of multinational corporations, assuming wealth will 'trickle down' to protect ecosystems.**

- A. True
- B. False