BLOOMING

Inclusion and Diversity in STEAM

Reflection Questions
Clean Energy Transition:

1. What inspired Dr. Paula Carroll to transition her career towards clean energy and operations research (OR)?
a) Her initial studies in electrical engineering
b) Her interest in renewable energy from childhood
c) Conversations with an operations research lecturer
d) A strong desire to reduce her carbon footprint

2. What is one of the key challenges in the clean energy transition?
a) The need for faster wind turbine production
b) The integration of renewable energy sources into traditional power grids
c) Public awareness of climate change
d) The design of solar energy systems for personal use

3. How do optimization techniques contribute to the clean energy transition?
a) By maximizing the efficiency of energy resource allocation and minimizing waste
b) By predicting weather patterns for better solar energy generation
c) By creating new types of energy storage technologies
d) By improving public transportation systems to reduce energy consumption

4. Which of the following renewable energy sources is primarily focused on for integration into traditional energy grids?
a) Biofuels
b) Nuclear energy
c) Solar and wind power
d) Geothermal energy

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5. How do optimization techniques impact the future of global energy systems?
a) They help governments plan and implement policies for sustainable energy use
b) They primarily focus on increasing fossil fuel efficiency
c) They are aimed at reducing the costs of energy production through subsidies
d) They focus on producing small-scale personal renewable energy devices

Answers

1. What inspired Dr. Paula Carroll to transition her career towards clean energy and operations research (OR)?
Answer: c) Conversations with an operations research lecturer

2. What is one of the key challenges in the clean energy transition?
Answer: b) The integration of renewable energy sources into traditional power grids

3. How do optimization techniques contribute to the clean energy transition?
Answer: a) By maximizing the efficiency of energy resource allocation and minimizing waste

4. Which of the following renewable energy sources is primarily focused on for integration into traditional energy grids?
Answer: c) Solar and wind power

5. How do optimization techniques impact the future of global energy systems?
Answer: a) They help governments plan and implement policies for sustainable energy use

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