



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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