Teacher Answer Key

Case Study

1. Residents earned points for scanning QR codes, providing an incentive to sort plastics accurately.

2. Having the facility in the same city minimized transportation costs and reduced emissions, making the program more efficient.

Multiple Choice

1. D

2. B

3. C

Matching

1-C, 2-E, 3-D, 4-B, 5-A

Fill-in-the-Blank

1) MRF, 2) energy, 3) Biopolymers

Short Answer (Sample Responses)

Q1: Contamination, such as food residue or mixing different plastic types, can ruin entire batches of recyclables by making it harder to process or rendering the materials unsuitable for reuse.

Q2: Even if materials are sorted perfectly, high recycling rates depend on market demand, consumer participation, and supportive legislation. Technology alone cannot solve economic or behavioral issues.

Q3: Policies can enforce mandatory recycling, invest in infrastructure, and offer incentives, or conversely neglect funding and oversight, undermining even the best-intentioned recycling programs