Teacher Answer Key

Case Study

1. It revealed that ecosystems can exist without sunlight, powered by chemical energy.

2. They suggest life could exist on other planets or moons with hydrothermal activity.

Multiple Choice

1. B

2. C

3. B

Matching

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

Fill-in-the-Blank

1) chemosynthesis, 2) 1977, 3) chemosynthesis

Short Answer (Sample Responses)

Q1: Bacteria provide nutrients by producing sugars; worms provide hydrogen sulfide and oxygen.

Q2: They feature high temperatures, toxic chemicals, and immense pressures that most life cannot tolerate.

Q3: They demonstrate that chemical energy can sustain ecosystems, raising possibilities for life on icy moons.