Teacher Answer Key

Case Study

1. Because hydrogen ions bind with carbonate, lowering its availability.

2. Weakening reefs reduce habitat for many species and disrupt food webs.

Multiple Choice

1. D

2. A

3. C

Matching

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

Fill-in-the-Blank

1) Basic, 2) Bicarbonate, 3) Carbonate (or: Calcium)

Short Answer (Sample Responses)

Q1: Both systems must stay within a narrow range to support life.

Q2: Excess CO_2 from fossil fuels dissolves in seawater, overwhelming the buffer.

Q3: Because reef-building corals are highly sensitive to pH changes, showing early impacts.