Teacher Answer Key

Case Study

1. Hatchlings use moonlight reflecting off the ocean as a guide; artificial light confuses them inland. Conservationists limit beachfront lighting and use hatcheries to protect nests.

2. Sand temperature determines hatchling sex. By changing the sand's temperature, climate change skews hatchling sex ratios and threatens long-term population stability.

Multiple Choice

1. B

2. D

3. A

Matching

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

Fill-in-the-Blank

1) sublingual (salt), 2) algae (or: seaweed), 3) magnetic

Short Answer (Sample Responses)

Q1: Sea snakes rely on an elongated lung and partial skin respiration for oxygen, while marine iguanas dive briefly then must bask to regain heat because they are cold-blooded.

Q2: Marine reptiles act as grazers (turtles and iguanas), predators (snakes), and prey for larger animals, keeping ecosystems balanced and supporting seagrass or algae health.

Q3: Sea snakes: bycatch in fishing gear, serious because their specialized physiology makes them vulnerable to rapid environmental change; sea turtles: eggs poached by humans or crushed by beach development, serious because only about 1 in 1,000 hatchlings survives to adulthood.