

Name _____

Dive into Diversity: Exploring the Different Species of Dolphins

Open-Ended Response Answer Key

1. Dolphins are classified as marine mammals because they have many characteristics common to other mammals, such as giving birth to live young, nursing their offspring with milk, and having hair at some point in their life cycle. Adaptations that allow dolphins to thrive in aquatic environments include streamlined bodies for efficient swimming, flippers for steering and propulsion, and a thick layer of blubber for insulation and buoyancy.
2. The habitat preferences of different dolphin species can impact their physical characteristics and behaviors in various ways. For example, dolphins that inhabit open ocean habitats may have longer migratory routes and larger home ranges compared to coastal species. Additionally, dolphins living in colder environments may have thicker blubber layers for insulation, while those in warmer waters may have streamlined bodies for efficient swimming.
3. Some challenges that dolphins face in their natural environments include competition for food with other predators, predation by sharks and killer whales, entanglement in fishing gear, pollution from human activities, habitat loss due to coastal development, and climate change. Dolphins overcome these challenges through a combination of behavioral adaptations, such as cooperative hunting and communication, and physiological adaptations, such as thermoregulation and metabolic efficiency.
4. Human activities, such as pollution, habitat destruction, and fishing practices, can impact dolphin populations and their habitats in various ways. Pollution from oil spills, plastic debris, and chemical contaminants can contaminate dolphin prey and habitat, leading to health issues and reproductive problems. Habitat destruction from coastal development and industrial activities can reduce available habitat and disrupt critical feeding and breeding areas. Overfishing and bycatch in fishing gear can reduce prey availability and result in accidental injuries or deaths of dolphins. Conservation efforts are needed to address these threats and protect dolphin populations and their habitats for future generations.

