

Diets and Dangers Worksheet Answer Key

*Please note that this answer key has all 3 case answers represented by different colors (Case 1 – red, Case 2 – green, Case 3 – blue). Answers on the table will vary depending on what the students pick, but should be found within the range listed.

1. Why is it important to understand what marine mammals eat?
Understanding what they eat helps us better protect their feeding grounds and the food web within that area.
2. Dolphin Case # 1, 2, 3
 - a. How many otoliths were found in the last meal? 2, 3, 2
 - b. Which fish species were consumed by the dolphin in its last meal?
Case #1: Striped mullet & red drum
Case #2: Striped mullet, red drum, spot
Case #3: Striped mullet & spot
3. Use your Case Card and the Food Web Trophic Level Guides to fill in the following table. Note, you will have to add up the levels from each Trophic Level Guide to fill out this table.

Dolphin Toxin Load per Trophic Level:

Trophic Level	Total toxin level of organisms (mL)
Dolphin Last Meal (Tertiary Consumer)	40, 60, 50
Secondary Consumer	41-57, 44-66, 15-26
Primary Consumer	85-98, 112-132, 48-62
Producer	98-118, 163-189, 58-78

What is the total toxin level for your dolphin? 264-313, 379-447, 171-216

4. What is bioaccumulation?
Bioaccumulation is when an individual animal's pollutant concentration increases over time.
5. What is biomagnification?
Biomagnification is when pollutant concentrations increase as they are passed up the food chain.
6. What is the difference between bioaccumulation and biomagnification?
Bioaccumulation is at the individual level where as biomagnification is at the ecosystem level (food chain).
7. Why do scientists need to understand animal diets and the potential dangers that affect the food web?
In order to protect them and their prey.