



Worksheet: Observation and Analysis of the Ocean Food Chain

ANSWER KEY

1. Observe the specimens and pictures of the sardine, mackerel and yellowtail. Notice and draw the mouth in the chart below. Pay attention to the direction the mouth points and size.

	Pacific Sardine	Pacific Mackerel	Yellowtail
Length	Up to 16 inches; average 9 inches	Up to 25 inches; average 16 inches	5 feet
Mouth	drawing	drawing	drawing

2. These fish are part of the same food chain. Define a food chain.

the transfer of energy from the primary producers (typically green plants) through a series of organisms that eat and are eaten, assuming that each organism feeds on only one other type of organism

3. Based on your observations, infer which fish eats which fish and record it below.

Pacific Sardine → Pacific Mackerel → Yellowtail

a. What observation helped you infer which fish eats which fish?

Answers will vary

b. What does the (→) mean in a food chain?

**the direction in which the energy is being transferred
left of arrow is prey, right of arrow is predator**

4. Ocean Food Chain Game Data Table

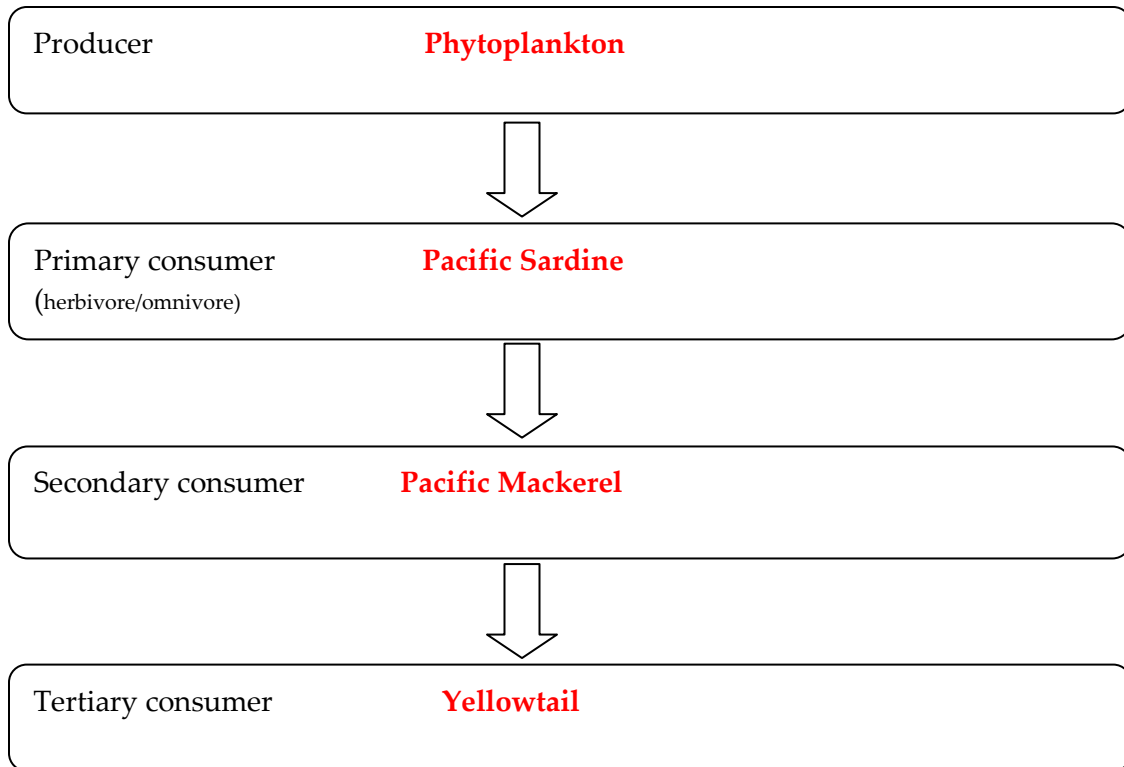
	Pacific Sardine	Pacific Mackerel	Yellowtail
Round 1 (Initial population)	Answers will vary	Answers will vary	Answers will vary
Round 1 (Final population)	Answers will vary	Answers will vary	Answers will vary

5. What changes occurred during each round (e.g. pesticides introduced, new predator)? In the following table, record what change was made and how it influences the population of each fish.

Changes per round	Pacific Sardine	Pacific Mackerel	Yellowtail
See Lesson Plan			

6. Complete the graphic organizer by listing each of the organisms by trophic level.

Habitat: Open Ocean



7. How are producers and consumers related in a food chain?

producers make their own food (using sunlight via photosynthesis)
consumers eat producers