

Plastic Impacts: Primary Consumers

Read the following article, then answer question 1:

<https://www.nationalgeographic.org/media/coral-reef-food-web/>

This resource carousel at the top contains more information about predators and prey in the ocean. Scroll to the third image, with the caption *Coral Reef Food Web Primary Producers to First Order Consumers*.

(Note that *first-order consumers* is another name for primary consumers.)

1. Find the numbers at the ends of the blue arrowheads. (For example, #1 is at the end of a blue arrowhead, but #3 and #4 are not.) Write these numbers below.

Now scroll to the eighth and final image, with the caption *Coral Reef Illustration Key*. Use the key to name each of the species you wrote down for Question 1.

Read the following article, then answer Questions 2 and 3:

<https://blog.nationalgeographic.org/2016/02/23/more-plastic-fewer-oysters/>

- 2. What effects did microplastics have on the oysters that ingested them, and why?

- 3. Adult oysters, like many shellfish, are sessile—their shells are planted to the seabed and they do not move. Do you think that plastic entanglement could affect oysters and other sessile organisms? If so, in what ways?

Read the following article, then answer Question 4:

<https://www.nationalgeographic.com/environment/2019/06/these-corals-choose-to-eat-plastic-over-food/?ngscourse>

- 4. The article states that most corals that ate plastic spat it out after 48 hours. So why did these corals die?

Complete this side when you return to your project group.

Trophic Level	Example Organisms	Ingestion Impacts	Entanglement Impacts
Primary Consumers			
Secondary and Tertiary Consumers			
Apex Predators			

Decomposers