

INFORMATIONAL READING COMPREHENSION:

Sustaining the World With Seaweed

Answer the following questions about "Sustaining the World With Seaweed."

1. Part A: Which statement best represents the author's point of view as expressed in the passage?

- A. Without seaweed, marine animals would no longer be able to survive in the wild.
- B. Seaweed could play an important role in solving many of the world's problems.
- C. People need to stop harvesting seaweed because it is destroying the oceans.
- D. Seaweed is the only food that people really need in order to survive and be healthy.

Part B: List three central ideas the author presents to support the above point of view.

- A. Seaweed is a sustainable superfood that can help feed a rapidly-growing world population.
- B. A seaweed called kelp can help absorb carbon dioxide from the atmosphere.
- C. Growing seaweed can support sustainable, eco-friendly jobs for people in many different industries.

2. Based on information in the "Seaweed as Superfood" section of the text, describe the advantages of seaweed as a source of human food.

Seaweed grows very quickly, and it does not require the use of fertilizers and pesticides that can harm the environment, as many common food crops do. Also, growing seaweed does not require increasingly scarce resources, such as fresh water and land.

3. Based on information in the "Help From Kelp" section, why do marine kelp forests likely outperform land forests in removing CO₂ from the atmosphere? Choose all that apply.

- A. Because they grow faster, kelp forests absorb CO₂ from the atmosphere at a faster rate than an equal acreage of trees.
- B. There are more kelp forests in all the oceans than there are tree forests on all the continents of the world.
- C. Kelp lives much longer than trees, so it holds onto its absorbed CO₂ for a longer period than trees do.
- D. The CO₂ from decaying kelp forests gets trapped, while the CO₂ from trees is quickly returned to the atmosphere.
- E. Marine animals that live in the kelp forests consume the CO₂ that is absorbed by the underwater kelp forests.

4. Review the text and diagram in the "Help From Kelp" section of the passage. In your own words, summarize the process by which kelp removes and keeps CO₂ out of the atmosphere.

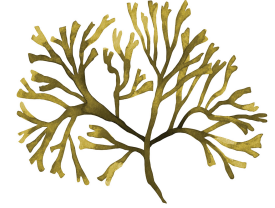
Kelp uses carbon dioxide to make food and grow during photosynthesis. When the kelp starts to decay, some tiny carbon dioxide particles get dissolved in the water and carried to the bottom of the ocean. Larger pieces of detached kelp float far out to sea, held up by air pockets on the kelp fronds. When the air pockets pop, the kelp sinks to the bottom, far out to sea and deep underwater, where the carbon is captured and kept away from the atmosphere for a long time.

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5. What is the meaning of seaweed aquaculture as it is used in paragraph 6?



- A. the interactions among organisms in seaweed forests
- B. the intentional cultivation of seaweed in ocean gardens**
- C. the harvesting of wild seaweed from marine environments
- D. the traditional use of seaweed in many Asian foods

6. Name two problems discussed in “A Sampling of Seaweed Solutions.” Then, describe at least one seaweed solution the author presents for each problem.

Problem	Seaweed Solution
need for jobs	Seaweed farming provides jobs in coastal communities, and seaweed is used in many industries.
toxic, polluted wastewater	Seaweed can clean and purify toxic wastewater created by people and industries.

7. Explain why the author likely included the table on page 2.

The author likely included the table to easily show the reader some of the many uses of seaweed in different industries.

8. Based on information in the table on page 2, what does the “pharmaceutical industry” mentioned in paragraph 6 most likely do?

- A. trains doctors and nurses at hospitals
- B. grows seaweed in gardens called “pharms”
- C. provides clean, safe water to sick people
- D. produces medicines to treat illnesses**

9. According to the author, seaweed farming could have a positive impact on people living in coastal communities, but it could also have a negative impact if it is not done right. Describe a possible positive and a possible negative effect.

- A. Possible positive effect: **could provide much-needed jobs and sustains fisheries**
- B. Possible negative effect: **could interfere with recreation and fishing if not done properly**

10. What is the likely reason that the author includes possible downsides of seaweed farming in the last paragraph?

- A. The author wants to discourage people from planting seaweed gardens.
- B. The author is restating the main points discussed in the passage.
- C. The author wants people to take on seaweed farming in a careful manner.**
- D. The author is trying to persuade people to plant only certain types of seaweed.