

Ocean Connections

Trace how people rely on and change ocean systems.

7.11.B “describe human dependence and influence on ocean systems and explain how human activities impact these systems.”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each way people depend on the ocean, circle each human activity, and number each activity-to-effect explanation so you can trace how people and ocean systems affect one another.

People and the Ocean

- ① Ocean systems support people in ways that are easy to miss. Coastal communities catch fish and shellfish for food and jobs. Ships carry products across ocean routes, often using less fuel per ton of cargo than trucks or airplanes. The ocean also absorbs much of the extra heat trapped by greenhouse gases and produces oxygen through tiny photosynthetic organisms. Beaches, reefs, and waves support tourism and recreation. These benefits show that people depend on healthy ocean water, habitats, and living things.
- ② Human actions can change ocean systems in connected ways. When rain washes fertilizer from farms into the sea, algae can grow quickly. As algae die and decompose, bacteria use oxygen, creating low-oxygen water where many animals cannot live. Plastic trash can entangle turtles or be eaten by seabirds and fish. Removing too many fish can upset food webs because predators or prey may decline. Burning fossil fuels adds carbon dioxide to the air. The ocean absorbs some of it, which makes seawater acidic and can make it harder for corals and shell-building animals to grow.
- ③ People can reduce these pressures while still using ocean resources. Farmers can apply fertilizer carefully and plant vegetation that slows runoff. Cities can improve waste collection so less plastic reaches waterways. Fishers can follow catch limits that leave enough adults to reproduce. Reducing fossil-fuel use lowers the carbon dioxide entering the atmosphere. These choices do not make the ocean separate from people. Instead, they recognize that ocean health affects food, work, climate, and coastal communities, while human decisions affect ocean conditions.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Identify two ways people depend on healthy ocean systems.

2 Explain the chain of effects that can happen when fertilizer washes from farms into the sea.

3 How can plastic trash and removing too many fish each affect ocean living things?

4 How does burning fossil fuels affect seawater and some ocean organisms?

3 YOUR TURN _____ Your own words

Choose a human activity not named in the passage that can affect an ocean system. In 3 or 4 sentences, describe how people depend on the ocean in this situation, explain one effect of the activity, and propose one action that could reduce harm.

PART 1 • READ AND MARK

Underline each way people depend on the ocean, circle each human activity, and number each activity-to-effect explanation so you can trace how people and ocean systems affect one another. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Identify two ways people depend on healthy ocean systems.	People depend on the ocean for food and jobs from fishing or shellfishing, shipping routes, oxygen production, absorbing heat, and tourism or recreation. Any two are acceptable.
2	Explain the chain of effects that can happen when fertilizer washes from farms into the sea.	Fertilizer can cause algae to grow quickly. When algae die and decompose, bacteria use oxygen, creating low-oxygen water where many animals cannot live.
3	How can plastic trash and removing too many fish each affect ocean living things?	Plastic can entangle turtles or be eaten by seabirds and fish. Removing too many fish can upset food webs as predators or prey decline.
4	How does burning fossil fuels affect seawater and some ocean organisms?	Carbon dioxide from burning fossil fuels is absorbed by the ocean, making seawater more acidic. More acidic water can make it harder for corals and shell-building animals to grow.

PART 3 • YOUR TURN (SAMPLE ANSWER)

A town builds a marina so boats can have sheltered places to dock, supporting travel and local businesses. Construction can cover seagrass beds, which provide shelter and food for young fish. Builders could place docks where they avoid seagrass and use methods that limit muddy water.

Accept accurate passage-based wording for Parts 1 and 2. For Part 3, accept any activity not named in the passage if the response clearly states a human dependence, a plausible ocean impact, and a reasonable harm-reduction action.