

Rivers Under Pressure

Trace how pollution sources change two major Asian rivers.

SS7G10.a "Explain the causes and effects of pollution on the Chang Jiang (Yangtze) and Ganges Rivers."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each pollution source and circle each effect it causes. Draw an arrow from a source to an effect that it can cause.

Two Rivers, Many Pressures

- ① China's Chang Jiang, also called the Yangtze River, supports large cities, farms, factories, and wildlife. As river water passes crowded industrial areas, some factories release wastewater containing chemicals and heavy metals. Untreated sewage from homes and businesses can add germs and nutrients. Rain can wash fertilizer and pesticides from nearby fields into streams that flow to the river. Plastic litter also enters the water. These pollution sources build up especially where many people and industries share the river basin.
- ② Extra nutrients can feed large algae blooms. When algae die and decay, they use oxygen in the water. Fish and other aquatic animals may struggle when oxygen levels fall. Heavy metals can collect in fish and shellfish and may enter the food people eat. Germs in sewage make water unsafe for drinking unless it is treated. Pollution can also make water treatment more costly and damage habitat for river species. China has strengthened some pollution controls, but protecting the long river remains difficult.
- ③ The Ganges River crosses densely populated parts of India and Bangladesh. In many places, untreated or partly treated sewage enters the river through drains. Industrial wastewater may carry chemicals, while runoff from farms can bring fertilizer and pesticides. Religious activities can add flowers, food, ashes, and other materials, especially at busy riverbanks. These inputs can raise germ levels and reduce water quality. People who bathe, work, or use untreated river water may face illness from harmful microorganisms. Fish and other wildlife can lose healthy habitat.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Name two sources of pollution in the Chang Jiang described in the passage.

2 Explain the cause-and-effect chain that can lead from fertilizer runoff to fish struggling in the Chang Jiang.

3 How can untreated sewage in the Ganges affect people who use the river water?

4 Identify one pollution source shared by the Chang Jiang and the Ganges. Then state one effect of pollution in each river.

3 YOUR TURN _____ Your own words

Write a four-sentence comparison. Explain one cause-and-effect chain for the Chang Jiang and one for the Ganges, then propose one practical action for each river that could reduce the pollution.

PART 1 • READ AND MARK

Underline each pollution source and circle each effect it causes. Draw an arrow from a source to an effect that it can cause. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Name two sources of pollution in the Chang Jiang described in the passage.	Any two: factory wastewater with chemicals or heavy metals, untreated sewage, fertilizer or pesticide runoff, or plastic litter.
2	Explain the cause-and-effect chain that can lead from fertilizer runoff to fish struggling in the Chang Jiang.	Fertilizer adds nutrients, which can cause algae blooms. When algae decay, they use oxygen in the water, so fish may struggle when oxygen levels fall.
3	How can untreated sewage in the Ganges affect people who use the river water?	It can raise germ levels. People who bathe, work, or use untreated water may become ill from harmful microorganisms.
4	Identify one pollution source shared by the Chang Jiang and the Ganges. Then state one effect of pollution in each river.	A shared source is untreated sewage, farm runoff, or industrial wastewater. Chang Jiang effects include unsafe drinking water, lower oxygen for fish, or costly water treatment. Ganges effects include illness from harmful microorganisms or loss of healthy wildlife habitat.

PART 3 • YOUR TURN (SAMPLE ANSWER)

At the Chang Jiang, fertilizer runoff can feed algae blooms, and decaying algae can lower oxygen for fish. Farmers could use less fertilizer or plant grass strips beside streams. At the Ganges, untreated sewage can carry harmful microorganisms that cause illness. Cities could collect and treat sewage before it enters drains leading to the river.

Accept equivalent cause-and-effect relationships supported by the passage. For the open response, accept realistic pollution-reduction actions that match the stated source for each river.