Tracing a Shoreline

Use different sources to investigate change around the Aral Sea.

TOT.P.2.3.A "Actively engage in asking and answering geographic questions by acquiring, organizing, and analyzing multiple sources of data and information about the world's past and present."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each type of evidence and circle each geographic question in the passage. Write 1 beside a claim supported by two sources and 2 beside a limit of one source.

Where Did the Aral Sea Go?

1. What happened to communities around the Aral Sea as its shoreline moved? In 1960, the Aral Sea stretched across parts of Kazakhstan and Uzbekistan. Survey maps from that period show a large, connected body of water and ports beside its shore. Beginning in the 1960s, irrigation projects diverted much of the water from the Amu Darya and Syr Darya, the rivers that fed the sea. Farmers used the water to grow crops, especially cotton. To study the change, a geographer must compare evidence from different dates and places, not rely on a single observation of a dry lakebed.

2. Satellite observations from the 1970s through the 2020s trace the shoreline's retreat and show that the sea split into northern and southern parts. They show where water remains, but they cannot by themselves prove why it disappeared. Water management records show that large amounts of river water were sent to fields before reaching the sea. Together, these sources link the changing shoreline to upstream water use. The Kok-Aral Dam, completed in Kazakhstan in 2005, helped raise water levels in the smaller northern part. The southern part has not recovered in the same way, so one description cannot fit the entire region.

3. Interviews add another scale of evidence. Residents of Moynaq, a former port town south of the sea, describe boats stranded far from the water and jobs lost when fishing collapsed. People near the northern sea report that some fishing returned after the dam raised local water levels. These accounts show how the same regional change affected places differently, but memories do not measure shoreline distance precisely. A careful geographer might ask, 'Which towns regained access to fishing, and when?' To answer, the geographer could compare dated shoreline records, fishing records, and interviews from several towns rather than treat any one account as the whole story.

2 ANSWER WITH EVIDENCE

Use the passage

1. How do the survey maps and later satellite observations together reveal a change that neither source alone could show?

2. Which two sources support the explanation that upstream irrigation helped shrink the sea? What does each source contribute?

3. Why would interviews from Moynaq alone give an incomplete answer to how the change affected people around the sea?

4. To investigate which towns regained fishing access and when, why would a geographer need both dated shoreline records and fishing records?

3 YOUR TURN

Your own words

Write your own geographic question about how upstream water use affected a downstream place around the Aral Sea. In five sentences, give a tentative answer using at least two source types from the passage, explain one source's limit, and name one additional source you would seek.

ANSWER KEY

Tracing a Shoreline

HIGH SCHOOL · TOT.P.2.3.A

PART 1 · READ AND MARK

Underline each type of evidence and circle each geographic question in the passage. Write 1 beside a claim supported by two sources and 2 beside a limit of one source. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How do the survey maps and later satellite observations together reveal a change that neither source alone could show?	**The survey maps show a connected sea in 1960. Later satellite observations show its shoreline retreating and the sea splitting into northern and southern parts.**
2	Which two sources support the explanation that upstream irrigation helped shrink the sea? What does each source contribute?	**Satellite observations show the shoreline retreating. Water management records show that river water was diverted to fields before it reached the sea.**
3	Why would interviews from Moynaq alone give an incomplete answer to how the change affected people around the sea?	**Moynaq residents describe lost fishing jobs, but people near the northern sea report that some fishing returned. The effects differed by place.**
4	To investigate which towns regained fishing access and when, why would a geographer need both dated shoreline records and fishing records?	**Shoreline records could show when water returned near a town. Fishing records could show whether and when fishing resumed there.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

How did upstream irrigation affect fishing jobs in Moynaq? Water management records show that river water was diverted to fields, and satellite observations show that the sea retreated. Interviews with Moynaq residents describe boats stranded far from the water and fishing jobs lost. Those interviews do not measure exactly how many jobs disappeared. I would seek dated employment records from Moynaq to investigate the size and timing of the job loss.

Accept questions about other downstream places or effects if the response uses two relevant source types, states a valid limit, and identifies evidence that could help test its answer.