

Shoreline Detectives

Compare dated geographic sources to identify change over time.

SS.5.G.1.1 "Interpret current and historical information using a variety of geographic tools."

NAME _____

DATE _____

1 READ AND MARK _____

Read it twice

YOUR JOB Underline each geographic tool named in the passage and circle the information it can show. Write H beside historical sources and C beside current sources.

A Fictional Waterfront Investigation

1 Imagine Harbor Town, a fictional coastal town in North America. The source descriptions below are invented for practice. A 1950 street map places its shoreline beside Old Wharf Road. A 2026 satellite image places the shoreline east of that road. Both sources identify the same road, whose location has not changed. The map includes street names and a compass rose showing direction.

INVENTED SOURCE DESCRIPTIONS – HARBOR TOWN

Geographic Tool	Date	Information Shown
Historical street map	1950	Shoreline beside Old Wharf Road
Satellite image	2026	Shoreline east of Old Wharf Road
Compass rose on the map	1950	Direction

2 Other geographic tools add details. A globe shows continents and oceans, helping a reader locate the region. A close-up town map shows nearby streets. GPS records a location using coordinates. An atlas can supply maps and facts about a larger region. Each tool has a purpose, so a reader checks the date, scale, and symbols before drawing a conclusion.

3 Historical and recent sources must be compared carefully. The 1950 map cannot show later buildings, and the 2026 image cannot show the shore in 1950. Use the compass rose to compare direction and street names to match locations. In this fictional example, the descriptions indicate that the shoreline moved east. Actual investigations require checking the original sources and matching their locations and scales.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Which two sources show the shoreline at different times? Tell what each source shows.

2 How does the compass rose help a reader interpret the historical map?

3 Why can you not use only the 2026 satellite image to learn what the shoreline looked like in 1950?

4 Which geographic tool would best help you find nearby streets in Harbor Town? Explain why.

3 YOUR TURN _____ Your own words

First, actually examine the historical map and recent aerial or satellite image your teacher supplies for the same real coastal place. Use the direction information and a shared fixed landmark to compare the shoreline. On separate paper, record both sources and dates, the landmark, one observed similarity or difference and one limit of the comparison. Then plan an investigation of whether a coastal park's shoreline changed since 1950. In rows 1 through 3, name a dated geographic tool and the information you would compare. In row 4, write a claim you could test with the sources. Use brief notes; continue on separate paper if needed.

SOURCE AND DATE	INFORMATION TO COMPARE	HOW IT HELPS

PART 1 • READ AND MARK

Underline each geographic tool named in the passage and circle the information it can show. Write H beside historical sources and C beside current sources. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Which two sources show the shoreline at different times? Tell what each source shows.	The 1950 map shows the shoreline beside Old Wharf Road. The 2026 satellite image shows it east of that same road.
2	How does the compass rose help a reader interpret the historical map?	It shows direction, so the reader can compare where features are located.
3	Why can you not use only the 2026 satellite image to learn what the shoreline looked like in 1950?	The 2026 image shows the shoreline in 2026, not in 1950.
4	Which geographic tool would best help you find nearby streets in Harbor Town? Explain why.	A close-up town map, because it shows nearby streets.

PART 3 • YOUR TURN (SAMPLE ANSWER)

SOURCE AND DATE	INFORMATION TO COMPARE	HOW IT HELPS
1950 map	Position of the park shoreline in 1950	Gives an earlier location for comparison
Current satellite image	Position of the shoreline today	Shows the current location
Current GPS coordinates	Exact points along today's shore	Helps match and measure locations
Claim to test	The shoreline is farther inland today than in 1950.	Compare the dated sources and coordinates

Harbor Town descriptions are fictional practice; keep their four source-relative answers. Before teaching, supply a sourced, readable historical map and recent aerial/satellite image of one real coastal place, each with date, orientation and scale, and mark a verified stable landmark. Match the area shown and explain differing scales. Require actual comparison of visible shoreline positions using that anchor and direction information; accept no clear change or uncertainty. Do not infer a cause or exact shift from differing tide stages, image quality or unmatched scales. Check the separate observation record against the supplied pair. The original four-row future investigation plan/model remains an extension; no independent source gathering is required.