# Buoy Location Log

Find exact positions using latitude and longitude

**6.C.1.2.B** "Use the system of latitude and longitude to identify the absolute location of a place on maps and globes."

NAME _____ DATE _____

## 1 READ AND MARK

Read it twice

**YOUR JOB** Circle every latitude and underline every longitude in the passage. Use the marked lines to work out each buoy's full location.

### Signals from the Atlantic

1. A ship can drift far from any road sign. To report its exact position, a crew uses latitude and longitude, two sets of imaginary lines on a globe. Latitude measures distance north or south of the equator. Longitude measures distance east or west of the prime meridian. The first number in a coordinate pair is latitude; the second is longitude. For example, 25° N, 65° E names one crossing of the two lines. A single direction or number cannot name that exact crossing.

2. On a stormy morning, a research ship checks four floating weather buoys in the Atlantic Ocean. The crew calls them Gull, Tern, Heron, and Petrel. Two latitude lines appear in the ship's written log: 10° N and 10° S. Two longitude lines appear there too: 20° W and 30° W. Every buoy sits where one listed latitude crosses one listed longitude. Each buoy sends back a short radio signal, so the crew must record a full coordinate pair before planning a visit.

3. The log gives clues instead of listing four complete pairs. Gull and Heron are north of the equator, while Tern and Petrel are south of it. Gull and Tern sit on the longitude closer to the prime meridian; Heron and Petrel sit on the other listed longitude. Both longitudes are west of the prime meridian. When the captain reads a location aloud, she always says latitude before longitude. That order lets another ship enter the same crossing into its navigation tools without mixing up the two lines.

## 2 ANSWER WITH EVIDENCE

Use the passage

1. What is Gull's absolute location? Write latitude first, then longitude.

2. A radio message reports a buoy at 10° S, 30° W. Which buoy sent it?

3. Which buoy is north of the equator and farther west? Give its name and full coordinates.

4. Which buoy shares Gull's longitude but is across the equator from it? Give its name and full coordinates.

## 3 YOUR TURN

Your own words

Invent a fifth buoy on the equator in the Atlantic Ocean. Name it, give its absolute location at a longitude from 1° E to 6° E, and write one sentence explaining how to find it using those coordinates.

ANSWER KEY

# Buoy Location Log

GRADE 6 · 6.C.1.2.B

## PART 1 · READ AND MARK

Circle every latitude and underline every longitude in the passage. Use the marked lines to work out each buoy's full location. Accept any marking that follows this job and points at the right text.

## PART 2 · ANSWERS

| # | QUESTION | ANSWER |
|---|---|---|
| 1 | What is Gull's absolute location? Write latitude first, then longitude. | **10° N, 20° W** |
| 2 | A radio message reports a buoy at 10° S, 30° W. Which buoy sent it? | **Petrel** |
| 3 | Which buoy is north of the equator and farther west? Give its name and full coordinates. | **Heron, 10° N, 30° W** |
| 4 | Which buoy shares Gull's longitude but is across the equator from it? Give its name and full coordinates. | **Tern, 10° S, 20° W** |

## PART 3 · YOUR TURN (SAMPLE ANSWER)

My buoy is Lantern, at 0°, 5° E. To find it, follow the equator to where it crosses the 5° E longitude line.

Accept any buoy name with latitude 0° and a longitude from 1° E to 6° E. The explanation should identify the crossing of the equator and the chosen longitude.