

Go for the Gold

Purpose: Understanding latitude and longitude coordinates

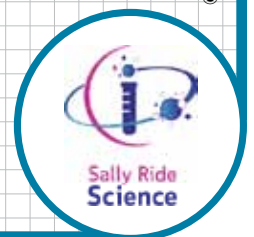
Length: 20 minutes

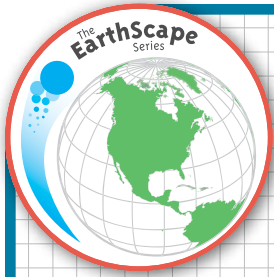
Materials: For each student:

- Go for the Gold map
- colored pens or colored pencils
- file folder

Divide students into pairs. Each student then “buries” Au—that very valuable metal, gold—treasure. With good guesses and savvy reasoning, students then locate the coordinates where their opponents buried gold.

1. Each student should prop up an open file folder so students can't see each other's maps.
2. Each student then chooses three locations on the map in which to bury their gold treasure. Make sure they use colored pen or pencil to mark the spots they've buried their gold. Each location should have a different set of latitude and longitude coordinates. It's important that each location be at a latitude/longitude intersection. That helps students narrow down their guesses.
3. The game is very difficult if students choose their locations randomly. It's much easier and less time consuming if their locations are in a row (horizontal, vertical, or diagonal) and not more than 15 degrees apart. For instance, their three coordinates might be: 45° N, 135° W; 30° N, 120° W; and 15° N, 120° W.
4. Students should carefully circle the three points. Then, on the bottom of their maps, they should write the coordinates of each point. Remember, latitude always comes first.
5. Then students take turns guessing—digging for the gold. Each guess should be a latitude number and direction and a longitude number and direction—for instance, 15° N, 30° E.
6. Students can respond only *with one-word answers, listed in the key*. Using the example of the buried treasure coordinates in Step 3, if the opponent guesses “ 45° N, 90° W,” then the answer would be “latitude.”
7. Another example: The opponent guesses “ 45° N, 120° W.” Because that guess matches the *latitude of one* buried treasure and the *longitude of another* buried treasure, the answers would be “latitude” *and* “longitude.” But, it's not “U found Au.”
8. Students should use a *pencil* to keep track of each guess. That way they won't confuse their guesses with their colored gold burial sites. A small mark on each set of coordinates they guess will help them avoid repeat guesses.





Go for the Gold (continued)

9. Don't forget to tell students about the hints they can give after three busts!
10. If students guess a correct latitude or longitude, they should write it down.
11. The game ends when the first student captures all three pots of Au.

Did You Know That . . .

Two places on Earth aren't identified by longitude—the North Pole and South Pole. That's because all longitude lines meet at the poles.

Hint, Hint



After Three "Busts"

After three busts, students can give a latitude hint, telling their opponent to go either "north" or "south."

After Three More "Busts"

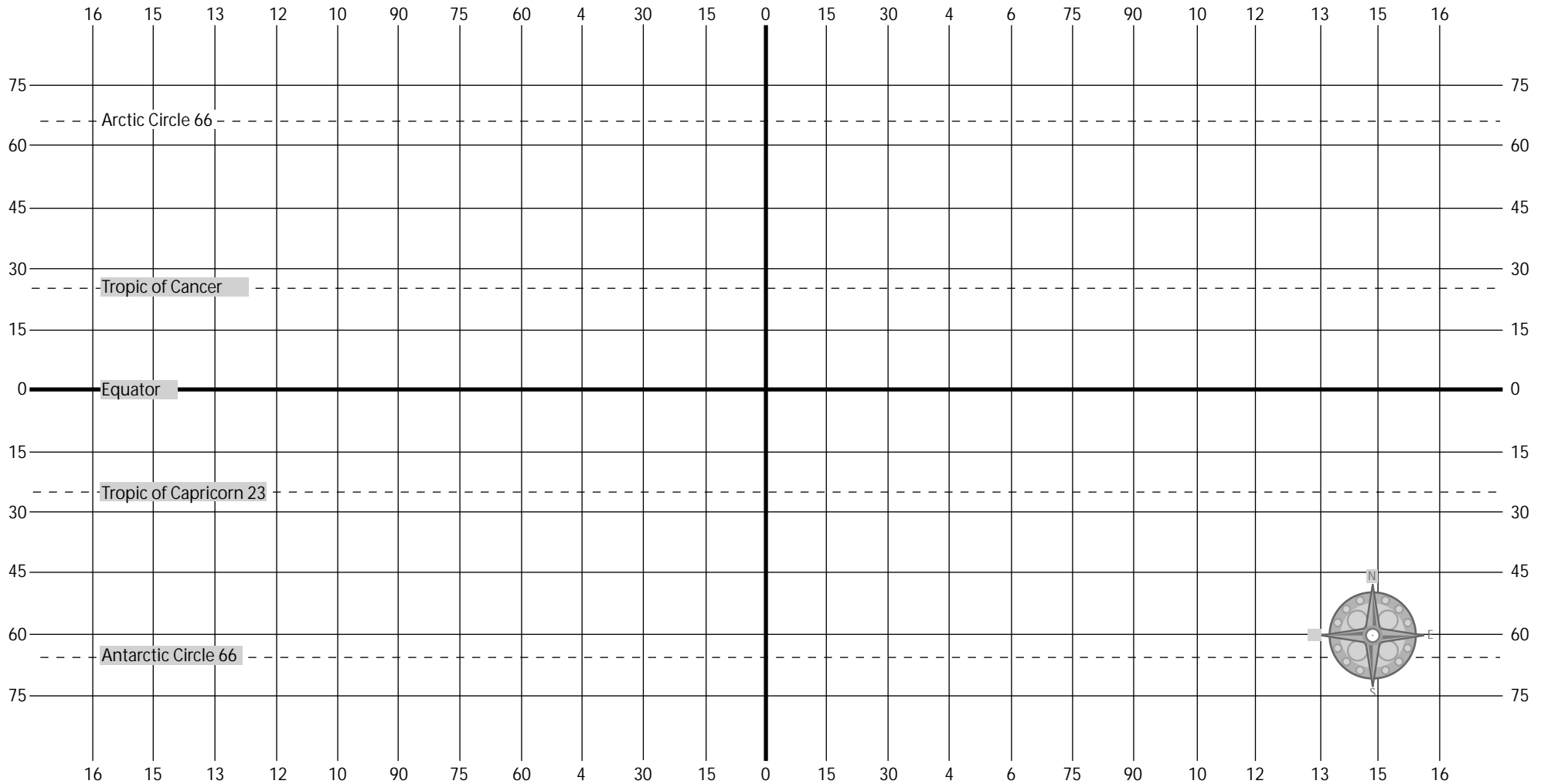
After three more busts, students give a longitude hint, telling their opponent to go either "east" or "west."



Go for the Gold

Where have you buried your gold treasure? Use color to mark the three spots you've hidden treasure. Make sure each spot is located where two lines meet. Then write your coordinates below.

Then let the games begin. Take turns with your opponent, making guesses about the locations of each other's buried gold. Use a regular pencil to mark the location of each of your guesses. If one of your guesses is right, circle it then celebrate. When all three are right, you're gold.



Where Do I Begin?

Latitude always comes first, followed by direction, then longitude, followed by direction.

Example: 15 N, 30 W.

Say the Word

Each time your opponent guesses, you can answer only one of these four ways:

"Latitude" If your opponent guesses the correct latitude but the wrong longitude.

"Longitude" If your opponent guesses the correct longitude but the wrong latitude.

"Bust" If your opponent guesses wrong on both the latitude and longitude.

"BAND" If your opponent guesses correctly on both the latitude and the longitude.

My gold is buried at:

1. _____
2. _____
3. _____