Name: _____ Date: _____

Finding a Hidden Spot With Latitude and Longitude

Circle group

Say you want a friend to find a hidden object on a globe. You cannot say, "It is near the middle." You need a way to give each place its own address. Mapmakers drew imaginary lines around the Earth.

Lines of latitude run east and west, like rings. The longest ring is the equator. It is zero degrees. Latitude tells how far north or south of the equator a place is. Lines of longitude run from the North Pole to the South Pole. The starting line is the prime meridian. It goes through Greenwich, England. Longitude tells how far east or west of it a place is.

To find a spot, first trace the latitude across the map. Next, trace the longitude up or down. The spot where the lines cross is the place. Write latitude first.

These numbers are coordinates. Sailors used them to cross oceans. Pilots and phones use them today.

Questions

1. Which way do lines of latitude run?

_____

_____

2. What is the line at zero degrees latitude called?

_____

_____

3. What does longitude tell you?

_____

_____

4. Which number do you write first?

_____

_____

5. Why do you need both lines to find a spot?

_____

_____

6. Why did sailors need coordinates at sea?

_____

_____

Words to know

latitude: distance north or south of the equator
longitude: distance east or west of the prime meridian
equator: the imaginary line around the middle of the Earth
imaginary: not real, but pictured in the mind
coordinates: a pair of numbers that name an exact place

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Finding a Hidden Spot With Latitude and Longitude

Triangle group

Imagine you want a friend to find a hidden object on a globe. You cannot just say "somewhere near the middle." You need a system that gives every place its own address. Mapmakers solved this problem by drawing imaginary lines around the Earth.

Lines of latitude run east and west, like rings around the globe. The longest ring is the equator, which is marked zero degrees. Latitude tells how far north or south of the equator a place is. Lines of longitude run from the North Pole to the South Pole. The starting line, called the prime meridian, passes through Greenwich, England. Longitude tells how far east or west of that line a place is.

To find any spot, follow these steps. First, find the latitude on the side of the map and trace a line across. Next, find the longitude along the top or bottom and trace a line up or down. The spot where the two lines cross is your location. Write the latitude first, then the longitude.

These numbers are called coordinates. Sailors used them to cross oceans, and pilots still use them today. Your phone also uses them to show where you are on a map.

Questions

1. Which direction do lines of latitude run?

_____

_____

2. What is the line at zero degrees latitude called?

_____

_____

3. What does longitude tell you?

_____

_____

4. Which number do you write first in coordinates?

_____

_____

5. Why do you need both latitude and longitude to find a spot?

_____

_____

6. Why do you think sailors needed coordinates on the ocean?

_____

_____

Words to know

latitude: distance north or south of the equator
longitude: distance east or west of the prime meridian
equator: the imaginary line around the middle of the Earth
imaginary: not real, but pictured in the mind
coordinates: a pair of numbers that name an exact place

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Finding a Hidden Spot With Latitude and Longitude

Square group

Imagine that you want a friend to locate a hidden object on a globe. You could not simply say "somewhere near the middle." You would need a system that gives every place on Earth its own address, and mapmakers solved this problem long ago by drawing imaginary lines around the planet.

Lines of latitude run east and west, like rings circling the globe. The longest ring is the equator, which is marked zero degrees. Latitude tells how far north or south of the equator a place is. Lines of longitude, by contrast, stretch from the North Pole to the South Pole. The starting line, called the prime meridian, passes through Greenwich, England, and longitude tells how far east or west of that line a place lies.

To find any spot, follow these steps. First, locate the latitude on the side of the map and trace a line across. Next, find the longitude along the top or bottom and trace a line up or down. The point where the two lines cross is your location. By convention, the latitude is written first, followed by the longitude.

These numbers are called coordinates. Sailors relied on them to cross entire oceans, pilots still use them today, and your phone uses them to show where you are on a map.

Questions

1. In which direction do lines of latitude run?

_____

_____

2. What is the line at zero degrees latitude called?

_____

_____

3. What does longitude tell you about a place?

_____

_____

4. Which number is written first in a pair of coordinates?

_____

_____

5. Why are both latitude and longitude needed to find a spot?

_____

_____

6. Why would sailors have needed coordinates on the ocean?

_____

_____

Words to know

latitude: distance north or south of the equator
longitude: distance east or west of the prime meridian
equator: the imaginary line around the middle of the Earth
imaginary: not real, but pictured in the mind
coordinates: a pair of numbers that name an exact place

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Finding a Hidden Spot With Latitude and Longitude

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Finding a Hidden Spot With Latitude and Longitude

Easier · 153 words · Flesch-Kincaid grade 3.3

1. East and west.
2. The equator.
3. How far east or west of the prime meridian a place is.
4. The latitude.
5. Where the two lines cross marks one spot.
6. There are no landmarks at sea, so numbers showed where they were.

Triangle: Finding a Hidden Spot With Latitude and Longitude

This passage · 200 words · Flesch-Kincaid grade 4.7

1. East and west.
2. The equator.
3. How far east or west of the prime meridian a place is.
4. The latitude.
5. One line alone only gives a whole ring or line, but the place where two cross marks one spot.
6. There are no landmarks at sea, so numbers showed where they were.

Square: Finding a Hidden Spot With Latitude and Longitude

Harder · 216 words · Flesch-Kincaid grade 6.2

1. East and west.
2. The equator.
3. How far east or west of the prime meridian it lies.
4. The latitude.
5. One line alone only gives a whole ring or line, but the point where two cross marks one spot.
6. There are no landmarks at sea, so numbers showed their position.