



Critical Thinking Skills



Mapping Skills with Google Earth™ Big Book

Mapping Skills with Google Earth™ – PK-2 – Mapping Skills with Google Earth™ – 3-5 – Mapping Skills with Google Earth™ – 6-8 – All three

| Skills for Critical Thinking | | Reading Comprehension | | | | | |
|------------------------------|---|-----------------------|-----------|-----------|-----------|-----------|-----------|
| | | Section 1 | Section 2 | Section 3 | Section 4 | Section 5 | Section 6 |
| LEVEL 1 Remembering | <ul style="list-style-type: none"> Match Show or Label List Information Recall Details Find Information | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| LEVEL 2 Understanding | <ul style="list-style-type: none"> Describe & Compare Summarize Explain Select | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| LEVEL 3 Applying | <ul style="list-style-type: none"> Organize Information Interview Apply Utilize Alternative Research Tools (Google Earth) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| LEVEL 4 Analysing | <ul style="list-style-type: none"> Conclude Analyze | | ✓ | ✓ | ✓ | ✓ | ✓ |
| LEVEL 5 Evaluating | <ul style="list-style-type: none"> Evaluate Compare | | ✓ | ✓ | ✓ | ✓ | ✓ |
| LEVEL 6 Creating | <ul style="list-style-type: none"> Design Create | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Based on Bloom's Taxonomy

NAME: _____



How to Read a Map

1. Look around the classroom and put a check mark (✓) next to the answer which best describes the position of the item.

a) The teacher's desk is:

- A at the front of the classroom.
- B in the back of the classroom.
- C in the middle of the classroom.
- D in front of the windows.

b) My desk is:

- A at the back of the class.
- B at the front of the class.
- C in the middle of the class.
- D in the hall.

2. Match the word on the left to its definition on the right by drawing a line.

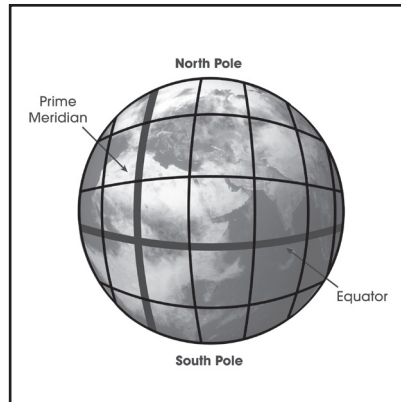
| | | | |
|---|--------------|-------------------------------|---|
| 1 | neighborhood | Shows direction | A |
| 2 | symbols | Small area, where people live | B |
| 3 | compass rose | Pictures that have meaning | C |
| 4 | legend | Using colors to explain | D |
| 5 | color code | Explains symbols on a map | E |
| 6 | map | Drawing of an area | F |



Latitude, Longitude and Time Zones

In order that people could accurately explain where things were in the world, it was necessary to agree upon the location of an imaginary grid. After much debate, it was agreed that the **Prime Meridian**, 0 degrees longitude, would be at Greenwich, England.

From that point, the Earth is divided by 360 degrees, which make a full circle of imaginary lines. The Earth is divided North to South by 180 degrees. The **Equator**, 0 degrees latitude, runs around the middle of the Earth, and there are 90 degrees North and 90 degrees South.



By giving **longitude** and **latitude coordinates**, it is possible to state where anything is located on the surface of the Earth.

Time Zones

The Earth rotates around the Sun and spins on its **axis** so different parts of the Earth face the Sun at different times. Everyone agreed that when the Sun is straight up in the sky, it is noon. Different parts of the Earth have the Sun straight up in the sky at different times. The Earth is a circle

with 360 degrees. These degrees were divided by 24 (one hour for the 24 hours in a day). 360 degrees divided by 24 equals 15 degrees, which equals one hour. So, when it is noon at 0 degrees it is 1:00 pm at 15 degrees East and 2:00 pm at 30 degrees East.

Mapping Hint:

Remember longitude lines run long ways, from top to bottom, and latitude lines run from side to side, or East to West.

Explore with Google Earth™



Type your hometown into the search field. Click on "View" and "Toolbar" in the top navigation bar. Click the Sun image in the toolbar at the top of your screen and move the scale back and forth. What do you notice about the Sun's movement across the surface of the Earth as you adjust the time of day?



Map Elements

1. Type in the coordinates listed below into the search field in Google Earth™. Write the name of the country found at that location on the line provided.

- a) 54.35°N, 1.53°W _____
- b) 15.27°N, 18.43°E _____
- c) 25°S, 135°E _____
- d) 41°S, 175°E _____
- e) 10°S, 52°W _____
- f) 22°N, 79°E _____
- g) 33°N, 103°E _____
- h) 62°N, 80°E _____
- i) 51.18°N, 10.22°E _____
- j) 0.59°N, 37.32°E _____

2. Type in the coordinates listed below into the search field in Google Earth™. Write the name of the bodies of water found at that location on the line provided.

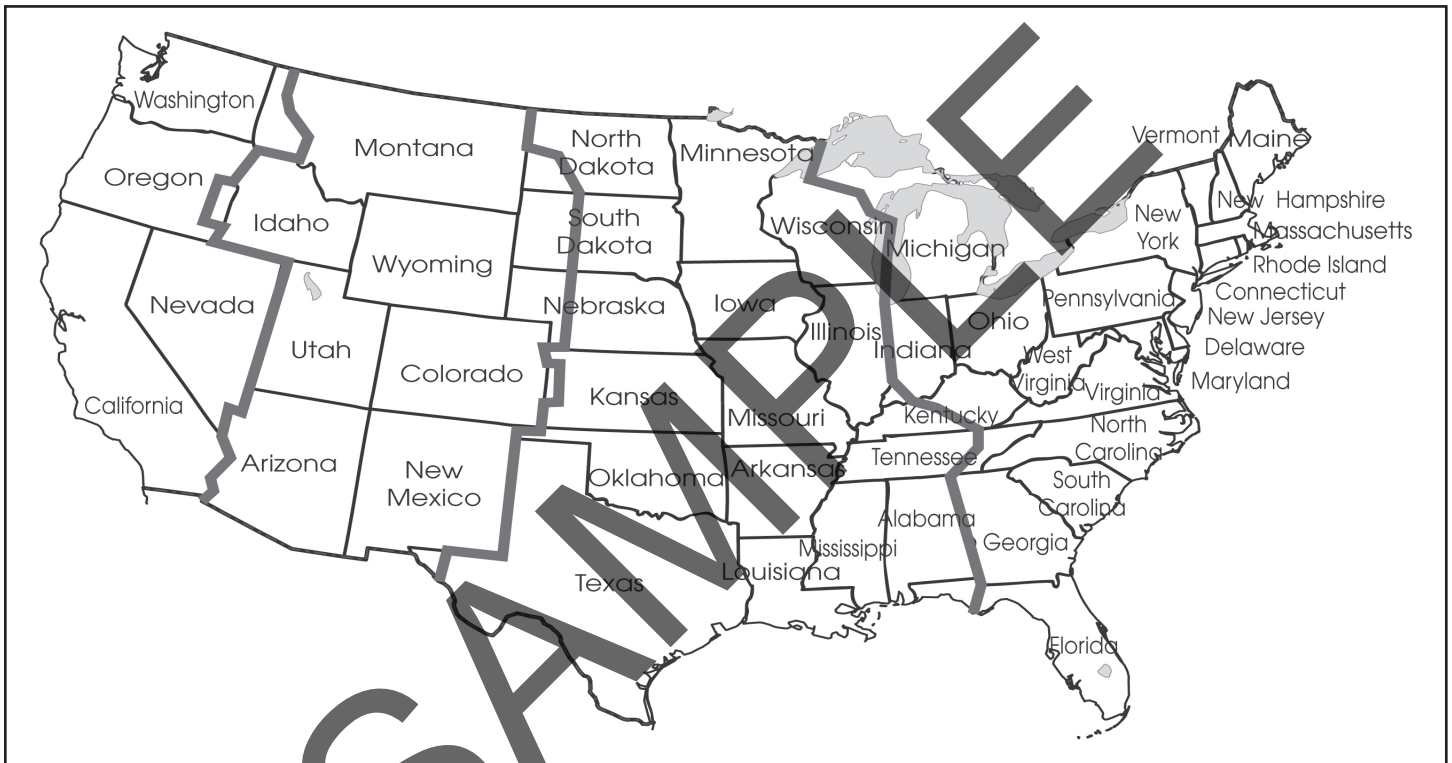
- a) 47.04°N, 86.18°W _____
- b) 150°E, 1°N _____
- c) 10.16°S, 70.13°E _____
- d) 27.12°N, 39.24°W _____
- e) 85.23°N, 3.17°E _____
- f) 25.15°N, 90.03°W _____

3. What are the coordinates for the Appalachian Mountains and the Rocky Mountains?



Latitude, Longitude and Time Zones

Look at the map of the United States. In 1850, John and his family left New York, to look for gold in California. Answer the following questions by using the map. Remember: each line of longitude equals 15 degrees, which equals one hour.



1. If it is noon in New York, what time is it in Colorado? _____
2. If it is noon in New York, what time is it in California? _____
3. If it is noon in New York, what time is it in Nebraska? _____
4. If it is noon in New York, what time is it in Florida? _____
5. What is the time difference between the East and West coast? _____
6. If you travel West, does the time decrease or increase? _____