Aims: SWBAT use latitude and longitude measurements to precisely locate places on a map
SWBAT differentiate between planet, hemispheres, continents, country, state, city, borough, neighborhood

DO NOW

Directions: Match the number of the continent or ocean with its name by writing the number in the blank provided.

North America ____  Africa ____  Pacific Ocean ____
Atlantic Ocean ____  Europe ____  Indian Ocean ____
South America ____  Antarctica ____  Asia ____

2. If I want to get from South America to Australia by traveling east, which ocean(s) will I cross? ________________________________________________________________________________
I. Map Minute

Directions: In the box label whether each of the following is an example of a planet, continent, country, state, city, borough or neighborhood.

<table>
<thead>
<tr>
<th>VENUS</th>
<th>SOUTH AFRICA</th>
<th>SOUTH AMERICA</th>
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<th>HARLEM</th>
<th>EARTH</th>
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<th>NEW JERSEY</th>
<th>ALBANY</th>
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<th>MANHATTAN</th>
<th>GREAT BRITAIN</th>
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<th>NORTH AMERICA</th>
<th>UNITED STATES OF AMERICA</th>
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Daily Debrief

Dear Brainiacs,

For the past couple of classes we have learned how to use cardinal and intermediate directions to identify places on a map. Today, our mission will be to learn and use a new technique for finding a location on a map. When you use cardinal and intermediate directions to find a location, you are finding the place’s relative location.

Relative Location is

While relative location is often helpful, geographers often need a more precise location in the world! When geographers ask you to find the exact point on Earth where something is located, they will ask you to find the absolute location. Absolute location tells you the exact point on Earth where something is located. In order to find the absolute location of a place in the world, we need to use our lines of latitude and longitude.

Quick Quiz!

If a friend is looking for Democracy Prep Harlem (on 133rd & Adam Clayton) but is lost on 135th and Lenox (by the 2, 3 subway), what directions would you give them?

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

__________________________

Is this the absolute location or relative location of the school?

________________________________________________________________________________________

________________________________________________________________________________________

II. How to Read Latitude and Longitude Lines

Lines of _______________________ and _______________________ are used to locate places on a map. More precisely called ________________________________
Longitude: **LONGitude**

Lines of longitude run from __________ to __________ and are labeled __________ and __________

Latitude: **LAT is FLAT**

Lines of latitude run from __________ to __________ and are labeled __________ and __________

**Equator:**

The Equator is the line of ________________ labeled at 0°

**Prime Meridian**

The Prime Meridian is the line of ________________ labeled at 0°
How do I write latitude and longitude?

1. Latitude comes first. Longitude comes second.  
   Example: Latitude, Longitude

2. Always put a degree sign ° after the number  
   Example: ____________________

Point _____ is located at 30° North, 90° West
Point _____ is located at 30° South, 150° East
Point _____ is located at 60° South, 30° West
Point _____ is located at 60° North, 30° East

The smiley face is located at ________________________________
The star is located at ________________________________
1. Ms. Brown is standing at 40°N, 100°W., which continent is she on?

_______________________________________________________________________________________

2. Mr. Rooney is snorkeling at 40°S., 20°E, which ocean is he in?

_______________________________________________________________________________________

3. Ms. Bell is vacationing off the coast of the continent that is located at 40°N., 20°E., which continent is she near?

_______________________________________________________________________________________
III. **Independent Practice**

**Part I: Directions:** Answer the questions about the map below.

1. Which letter is the Equator? _____
2. Is letter A a line of latitude or longitude? ______________________
3. Which letter is the Prime Meridian? _____
4. Is letter B a line of latitude or longitude? ___________________________
5. Which letter is 60° West? _____
6. Which letter is 30° South? _____
7. Which letter is 150° East?
8. What type of line is letter G? ______________________
9. What type of line is letter H? ______________________
**Directions:** Fill in the blanks with North, South, East and West

Lines of longitude run from ________ to ________ and are labeled ________ and ________

Lines of latitude run from ________ to ________ and are labeled ________ and ________

When you write the absolute location of a point, which comes first? Latitude or Longitude?
________________________

Which point is located at 30° S, 60° West? _____
Which point is located at 60° North, 30° East? _____
Which point is located at 30° North, 120° West? _____
Which point is located at 30° South, 150° East? _____

What is the absolute location of the star? ________________________________________
What is the absolute location of the smiley face? _____________________________________

US History, Ms. Brown
Need Help? Email: abrown@democracyprep.org or Call 646.477.2663
1. You are shipwrecked at 20° N., 160° W. What ocean should search crews go to search for you?

__________________________________________________________________________________________

2. If you are standing at 40° N, 100° E., are you standing on land or are you in the water? Tell me which continent you are on OR which body of water you are in.

__________________________________________________________________________________________

3. If Mr. Davis is vacationing at 20° S., 20° E., which continent is he on?

__________________________________________________________________________________________

4. Ms. Moore is planning a vacation at 80° S., 120° W., which continent is she planning to visit?

__________________________________________________________________________________________

5. Ms. Christy is visiting friends at 20° N., 100° W., where on Earth is she?

__________________________________________________________________________________________
BRAINIAC CHALLENGE QUESTIONS

1. Which point is closest to 60° N., 120° W.? _____
2. Which point is closest to 30°N, 30°E.? _____
3. What is the location of the point closest to Australia? _____
4. What is the location of the point in the Pacific Ocean? _____________________________
5. What is the location of the point in Asia? ________________________________
WHERE IN THE WORLD IS CARMEN SANDIEGO?

Your mission, should you choose to accept it is to save the world’s most valuable jewels from Carmen Sandiego. Ms. Sandiego was last seen in Paris, France with the gems. In France she was captured by the police only to later escape from jail with the jewels! The police say she left only one clue behind. It is your job to follow her clues and rescue the gems.

Directions: Plot the coordinates of Carmen Sandiego’s journey. Each stop should be represented by a number on the map. When you arrive at your destination, write the name of the country where you have arrived. These are priceless jewels and the world is counting on you to catch Sandiego! Your first challenge is to find Paris, France. The coordinates of Paris are 48°N, 20°E. (when you find the coordinate on the map, put the number 1).

Clue #1: Sandiego dropped the coordinates of her next stop on a small piece of paper in her jail cell. They are 37°N, 23°E. (write the number 2 on the map).

Clue #2: Welcome to ____________! Sandiego just flew out in a helicopter but not before leaving another clue. While eating lunch Sandiego was spotted by the police and ran from her table leaving her unpaid bill and a ticket to her next destination. The coordinates of this place are 19°N, 72°E. (write the number 3 on the map).

Clue #3: You have made it to ____________ safely. Unfortunately you missed Sandiego who has already left by boat jewels in hand. One of the fishermen on the dock where her boat left from hear Sandiego saying she was headed to the coordinates 33°S, 40°W. (write the number 4 on the map).

Clue #4: You are now in ____________. You are getting closer to Sandiego. As you walk through the local market you hear a vendor telling his friend that Sandiego just paid him for his motorcycle. He tells his friend that she is headed for the coordinates 22°S, 40°W. (write the number 5 on the map).

Clue #5: ____________ is full of color and life. However, Carmen Sandiego has fled, she is starting to realize you are hot on her trail. She traded her motorcycle for a train ticket up north. The train station told you she is headed for the coordinates 28°N, 105°W. (write the number 6 on the map).
Clue #6: You arrive in ______________ only to learn Ms. Sandiego changed her train ticket when she found out you were on her trail. One of the other train passengers saw her changing her ticket to go to 38°N, 77°W. (write the number 7 on the map).

Clue #7: You are in the ___________________________. The FBI has been notified of your arrival and meets you at the train station. Ms. Sandiego in addition to stealing the priceless jewels from Paris, France has also stolen the President’s dog! She was last seen boarding a plane at 3am. Her flight crew was captured by Sandiego once again escaped. Her crew says she was on her way to the coordinates 59°N, 30°E. (write the number 8 on the map).

Clue #8: Your trip is delayed because of a huge snowstorm. By the time you arrive in ____________, Sandiego has already left on a dog sleigh. The man whose sleigh she stole said she mumbled something about heading for warmer weather. He thinks she said she was going to coordinate 31°N, 121° E. (write the number 9 on the map).

Clue #9: You arrive in ____________ and you are getting closer to Sandiego. She is starting to get sloppy and she left the coordinates for the next place she is going in her abandoned dog sleigh. The coordinates are 26°S, 28°E. (write the number 10 on the map).

Clue #10: In ____________________________, they tell you that Carmen Sandiego left the president’s dog at a local kennel. When you arrive at the kennel you find a strange piece of paper tied around the dog’s neck. It says 40°N, 3°W. (write the number 11 on the map).

Clue #11: When you arrive in ____________ you know that you almost have Sandiego. She has left an entire bag at the airport because she was almost caught by local police In the bag you find a few brochures for a place you have never seen before. The coordinates are 18°N, 77°W. (write the number 12 on the map).

Clue #12: You arrive in _______________. Everyone is in an uproar because Sandiego has stolen a large fishing boat. They say they heard her yell “Here I come mates!” as she sailed away. One man is convinced she is headed for 31°S, 115°E. (write the number 13 on the map).

You arrive in ___________________________. You are greeted by a man at the airport who informs you that he just saw Sandiego leaving the airport in a yellow cab, You hop in a cab quickly and tell it to go to the center of town. When you get into town you see Sandiego walking into a surf show, you follow her in and she sees you behind her! You turn up a different street only to catch her. CONGRATULATIONS you have saved the jewels and captured Carmen Sandiego. (write the number 14 on the map).
Name ___________________________ Date: _______________ Homeroom: _____________

EXIT TICKET

_____ / 5 Mastered/Passing/Not Mastered

1. The latitude line that is 0° is known as
   a. Prime Meridian
   b. Equator
   c. Equidistant
   d. Meridian

2. The longitude line that is 0° is known as
   a. Equator
   b. Prime Meridian
   c. Parallel
   d. Equidistant

3. Which point is at 30°S, 30°E? _____
4. Which point is at 60°N, 90°W? _____
5. Latitude and Longitude are used to
   a. Tell the difference between cultures
   b. Find the absolute location of places on Earth
   c. Navigate rivers
   d. Get from one highway to another