Latitude & Longitude, Map Types, Map Skills

September 2017
Weekly Plan

Monday 9/18-Latitude and Longitude
Tuesday 9/19-Lat/Long & Map Skills
Wednesday 9/20-Map Types Continued
Thursday 9/21-Geography Stations
Friday 9/22-Geography Stations

Geography Test: ?
Warm up work starts this week :) 
Complete Monday’s warm up work.
Latitude & Longitude

- What is their purpose?
- What directional terms are associated with Latitude?
- What directions are associated with Longitude?
In what order should the lat./long. points be written?

Find Latitude first. Then find Longitude.

(Lat. Long.)

(°N/S, °E/W)
Latitude and Longitude Practice

40°N, 105°W
45°N, 120°W
40°N, 90°W
30°N, 100°W
35°N, 80°W
What is the continent?

When I give you a coordinate, raise your hand to tell me the continent it is in.

*Use atlas page 10-11

<table>
<thead>
<tr>
<th>Coordinate</th>
<th>Continents</th>
</tr>
</thead>
<tbody>
<tr>
<td>60°N, 105°W</td>
<td></td>
</tr>
<tr>
<td>30°S, 135°E</td>
<td></td>
</tr>
<tr>
<td>30°N, 0°</td>
<td></td>
</tr>
<tr>
<td>45°N, 90°E</td>
<td></td>
</tr>
<tr>
<td>30°S, 60°W</td>
<td></td>
</tr>
<tr>
<td>Challenge: 25°N, 100°W</td>
<td></td>
</tr>
</tbody>
</table>
What is the country?

<table>
<thead>
<tr>
<th>Coordinate</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>15°S, 45°W</td>
<td></td>
</tr>
<tr>
<td>60°N, 135°E</td>
<td></td>
</tr>
<tr>
<td>30°N, 60°E</td>
<td></td>
</tr>
<tr>
<td>45°N, 120°W</td>
<td></td>
</tr>
</tbody>
</table>

When I give you a coordinate, raise your hand to tell me the country it is in.

*Use atlas page 12-13*
1. Which city is located near the coordinate point 5° South, 40° East?
   A. Tunis  
   B. Kinshasa  
   C. Accra  
   D. Dar es Salam

2. Which city is located on the equator?
   A. Antananarivo  
   B. Cape Town  
   C. Libreville  
   D. Algiers

3. Which city shown on this map is located the furthest south in Africa.
   A. Maputo  
   B. Cape Town  
   C. Tripoli  
   D. Dakar

4. In which Hemisphere is most of Africa?
   A. Eastern Hemisphere  
   B. Western Hemisphere
Individual Practice

1. Pick up the coordinate riddle page from the front table
2. If you get finished, create your own riddle on the back of the riddle sheet to share with a classmate
Latitude & Longitude Skills

Pass back yellow folders.
Work on your warm up work!
Latitude and Longitude

- Draw a globe on the back of your page
- Draw lines of latitude
  - = Latitude
  - Measured in °N or °S
- Draw lines of longitude
  - = Longitude
  - Measured in °E or °W

**Make sure you show that the lines curve with Earth’s surface**
Latitude and Longitude Song
Latitude Read & Respond

Use the texts below to answer the questions.

Highlight or underline any vocabulary words you see.

We will do the first few together...
Relative location is the position of a place compared to another place. You can use it to describe what something is next to or near. For example, you could say that Yemen is a country east of the Red Sea. But what if you don’t know where the Red Sea is either?

Absolute location is the exact position of a place on Earth. To describe it, you can use coordinates of latitude and longitude. For example, Spanish Town, Jamaica, is located at 18°N, 77°W. Anyone can use a map to find that exact spot on the globe.

Which of the following correctly describes the relative location of Saudi Arabia?

A. Saudi Arabia shares its eastern border with Sudan.
B. Saudi Arabia is south of Ethiopia.
C. Saudi Arabia is north of Yemen.
D. Saudi Arabia is between Djibouti and Somalia.
Question 2

Latitude lines run east to west around the globe. You can remember it this way: Latitude lines are flat! Latitude lines run east to west, but they actually give us a location that is a certain number of degrees north or south of the equator. If you were 50 degrees north of the equator, your latitude would be $50^\circ$ N.

Which of the following describes a line of latitude?

A. $30^\circ$W
B. $90^\circ$S
C. $40^\circ$E
D. All of the above
In math, angles are used to describe sections of a circle. Since the Earth is round, we measure latitude and longitude with the same measurement that we use for angles: degrees. The symbol for degrees looks like this: °

When we write the coordinates of a location, we write the latitude first (north or south) and then the longitude (east or west). We separate the two with a comma.

When a place does not land on a whole number degree, there are a few ways to describe absolute location. One way is to use decimals to describe a portion of a degree. Yerevan, Armenia, is 40.2 degrees north of the equator (latitude) and 44.5 degrees east of the Prime Meridian (longitude). It’s located at: 40.2° N, 44.5° E.

Bedford, Pennsylvania, is very close to the 40°N line of latitude but not exactly on it. Which of these is true?

A. You can't describe Bedford's absolute location.
B. 40° N is as close as you can describe Bedford's latitude.
C. Bedford has longitude but no latitude.
D. You can describe Bedford's latitude with a decimal.
Did you know that the region of Earth surrounding the equator is called the tropics? This area is between the Tropic of Cancer at 23.5° N and the Tropic of Capricorn at 23.5° S latitude. The tropics experiences no dramatic change in seasons because the sun is always high in the sky. People who live north of the Tropic of Cancer and south of the Tropic of Capricorn—that is, farther from the equator in either direction—experience more dramatic seasonal climate changes.

Which of the following continents is entirely outside of the tropics?

A. Africa
B. Europe
C. Asia
D. Australia
A hemisphere is a half of the globe. The equator splits the globe into the Northern and Southern Hemispheres. The Prime Meridian splits the globe into the Eastern and Western Hemispheres.

Even without a map, latitude and longitude tell us the hemispheres in which a place is located. For example, Foso, Lesotho, is located at 29.2° S, 27.3° E. This tells us it is south of the equator (latitude) and east of the Prime Meridian (longitude). We know from these coordinates that it’s in the Southern and Eastern Hemispheres.

Which of these coordinates describes a place in the Northern and Western Hemispheres?

A. 100° N, 18° W  
B. 29.2° S, 27.3° E  
C. 30° N, 45° E  
D. 2° N, 1° E
Individual Practice

1. Answer the next two questions on your own.

2. Finish your Map Mystery riddle sheet.

3. If you get finished, create your own riddle on the back of the riddle sheet to share with a classmate.
Maps and Map Skills

Pass back yellow folders.
Work on your warm up work!
Let’s Discuss!

In your Yellow Notebook- Write on the following topic:

What do you think is important to have on a map in order for someone to be able to read it?
Map Skill Review

- No single map can show everything, so the features portrayed on each map are selected to fit a specific purpose!

- Use L.C.A.T.S. to remember the important map elements.
  - Legend
  - Compass
  - Absolute Location (Latitude / Longitude)
  - Title
  - Scale
**L.C.A.T.S.**

- **Legend** - A guide identifying what the map’s symbols and colors represent.

- **Compass** - indicates the cardinal directions and the intermediate directions.

- **Absolute Location** - The latitude lines (N or S of the Equator) and the longitude lines (W or E of the Prime Meridian).
Absolute Location
Title - Tells you what the map is supposed to portray; what is happening, where, and when.

Scale - Tells you the relationship between the distance on a map and actual distance on the earth.
STOP! Let’s Discuss!

● Take a minute to talk to the people at your table about what the difference between a reference map and a thematic map is.

● Be ready to have something to share, as I will call on each table to give a response.
Reference vs. Thematic Maps

- There are two main types of maps, based on their design purpose.

- **Reference** (or general purpose) maps depict selected details of the physical and human-made environment as accurately as possible.

- They use symbols to locate and identify important geographical features.
Reference Maps

- Some examples of reference maps include:
  - Road maps, classroom wall maps, political maps, physical maps, satellite map and topographic maps.

- A topographic map is a special reference map that shows coastlines, cities, and rivers that use shades of different colors to show elevation differences.
Road Maps

Topography Maps
Satellite map of the Aral Sea overtime.
Reference Maps

- A political map is a reference map that shows country and state borders, capitals, and cities.

- A physical map is a reference map that shows landforms such as mountains and valleys, rivers and lakes.
Examples of Reference Maps

Physical Map of North America
Practice

Turn to your neighbor to discuss and answer the following questions:

Look at the two maps to the right.

1. Which type of map would be more useful in determining the countries through which the Euphrates River flows?
   A. Topographical Map (Physical Map)
   B. Political Map

   Explain your reasoning. . . .

2. Which type of map would you use if you wanted to find out if there were mountain ranges located in Syria? Why?
   A. Topographical Map
   B. Political Map
Thematic Maps

- Thematic (also called special purpose) maps focus on one geographic theme, or subject.
  - Economic
  - Climate
  - Precipitation
  - Vegetation
  - Environmental
  - Population
  - Religion/Culture
Examples of Thematic Maps

Climate Map of North America
McDonald’s
ACROSS THE WORLD

Countries with McDonald’s

Countries without McDonald’s

Number of McDonald’s outlets of selected countries

- US: 13,381
- Japan: 3,598
- Canada: 1,400
- Germany: 1,276
- UK: 1,250
- China: 660

Most expensive McDonald’s burger - selected countries (USD)*

- Norway: 7.18
- Denmark: 5.93
- Iceland: 5.21
- Eurozone: 4.96
- US: 3.57

World’s busiest McDonald’s

Located on famous Pushkin Square in Moscow, the largest McDonald’s in the world (more than 28,000 sq. ft.) and the busiest (more than 250 million customers to date). The restaurant seats 700 customers and has a 70-foot-long service counter with 27 cash registers.

* Prior using the Big Mac index published by The Economist, as an informal way of measuring the purchasing power parity (PPP) between two currencies and provides a test of the extent to which market exchange rates result in goods costing the same in different countries.

Source: www.cande.com | www.aboutmcdonalds.com
The world map of social networks

Social networks with the largest number of registered users, mln people

- Facebook: 640+
- Qzone: 480
- Habbo: 200
- Twitter: 200
- Renren: 160
- MySpace: 125+
- Orkut: 120+
- Bebo: 117
- Vkontakte: 110+
- Tagged: 100+}
- Badoo: 100+

Data from various sources for July 2010 - February 2011

Dominating networks according to country

- Facebook
- QZone
- Vkontakte
- Odnoklassniki
- Orkut
- Mii
- Zing
- Cloob
- Daum

Data for February 2011
Source: Alexa.com
Top Messaging Apps by Q3 2015 Monthly Active Users

- iPhone and Android Phone

- WhatsApp
- Facebook Messenger
- KakaoTalk
- WeChat
- Line
Make your own digital thematic map

http://mapmaker.nationalgeographic.org/#/
Thematic Map Project

- You are going to be designing a thematic map of a continent of your choosing.

- You will have the choice of designing a climate, population, environments, or economic activity thematic map. You will use your Atlas as your primary resource (A. pg 80-81).
When designing your map...

- First. Look through your atlas to help you choose which continent you want to do and what type of thematic map you want.

- Then select a title for your map that matches your maps purpose.

- Fill these choices out on your rubric before coming to me to get your map outline.
Thematic Map Activity Rubric/ Checklist

Name:________________________

Continent:________________________

Type of Thematic Map (Circle 1): Climate  Population  Environment  Economic Activity
Other (approved by teacher):______________________________________

What is the specific purpose of your Thematic Map?

____________________________________

Your map must include:
A title of your thematic map:
An accurate Legend:
A compass with the cardinal and intermediate directions:
Label one surrounding body of water, and Label one city:
A correctly colored map:
Map is neat with correct spelling:
Three questions written on the back of this rubric that relate to the information on your map. Please include the answers as well.

_____/1  
_____/6  
_____/1  
_____/2  
_____/5  
_____/2  
_____/6

Total: _____/25 points