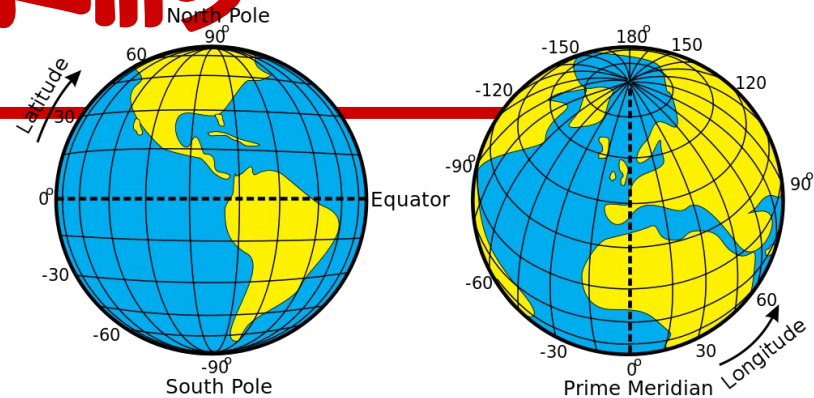

Latitude & Longitude, Map Types, Map Skills

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

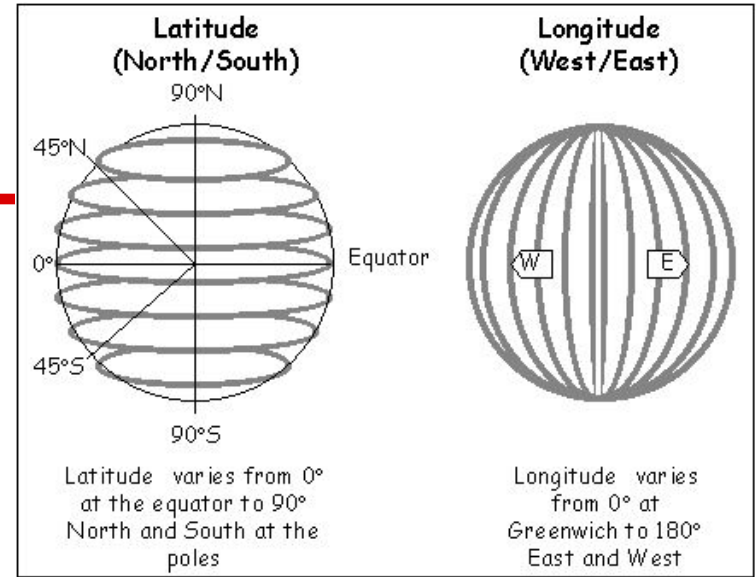
Geography Test: ?

Latitude & Longitude

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?



Latitude & Longitude

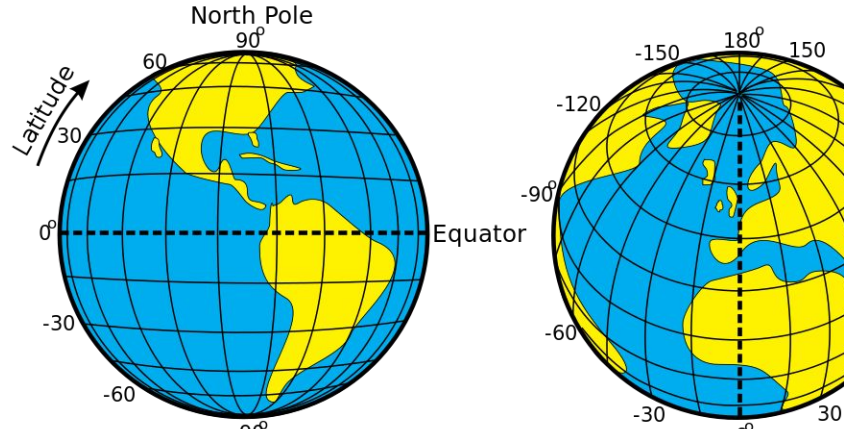
- In what order should the lat./long. points be written?

Find Latitude first.

Then find Longitude.

(Lat. Long.)

(°N/S, °E/W)



Latitude and Longitude Practice

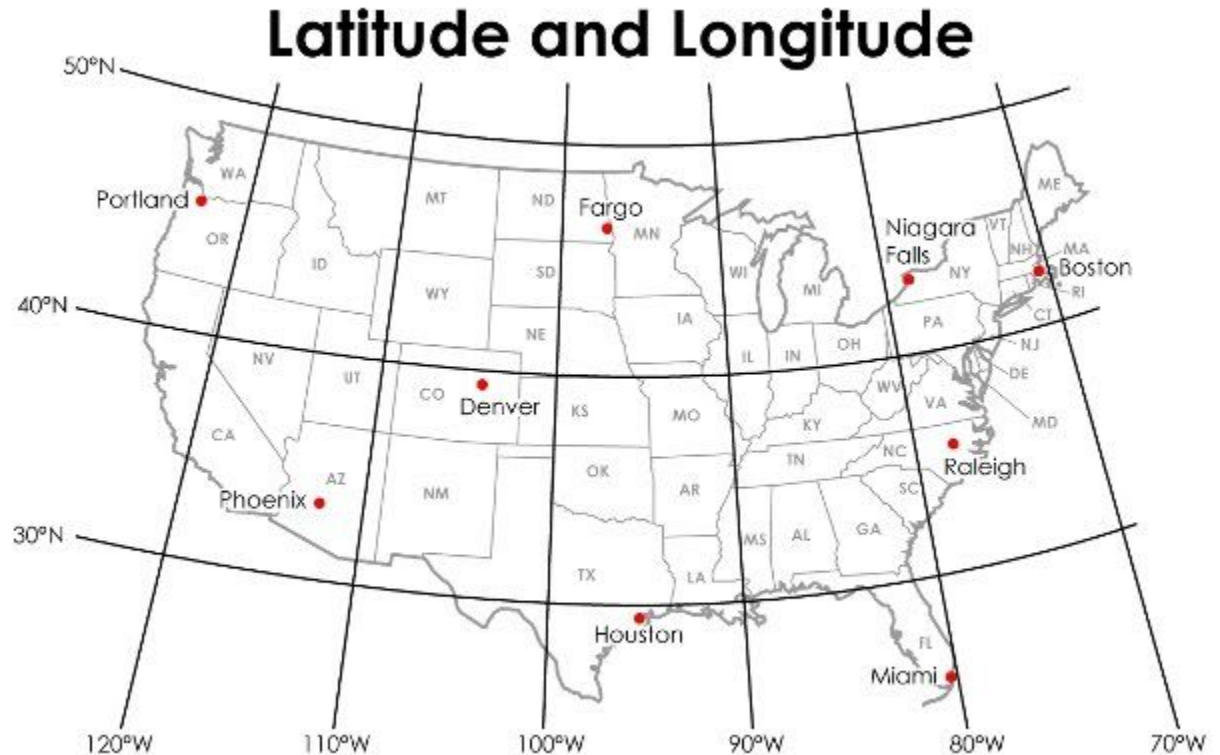
40°N, 105°W

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

60°N, 105°W

30°S, 135°E

30°N, 0°

45°N, 90°E

30°S, 60°W

Challenge: 25°N, 100°W

What is the country?

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

*Use atlas page 12-13

15°S, 45°W

60°N, 135°E

30°N, 60°E

45°N, 120°W

A map of Africa is shown below.

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

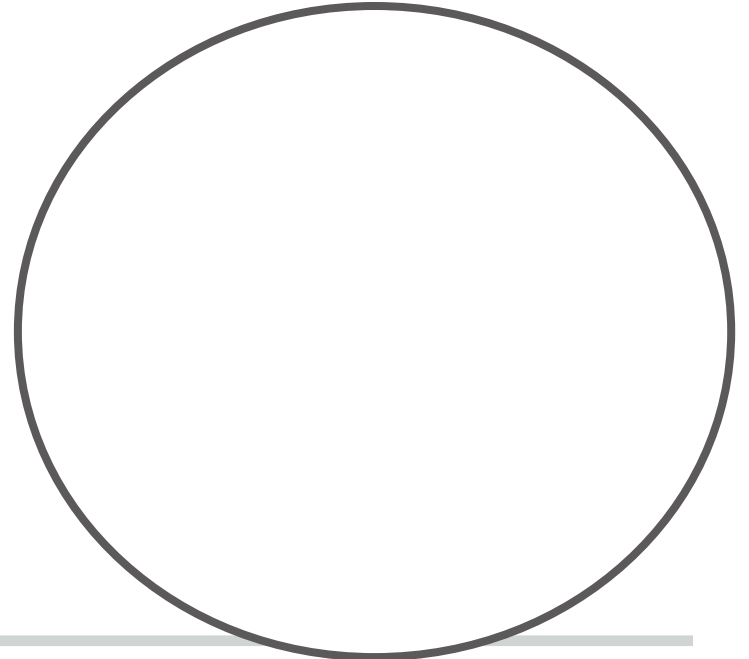
1. Pick up the **coordinate riddle page** from the front table
 2. If you get finished, **create your own riddle** on the back of the riddle sheet to share with a classmate
-

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...

Question 1

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?



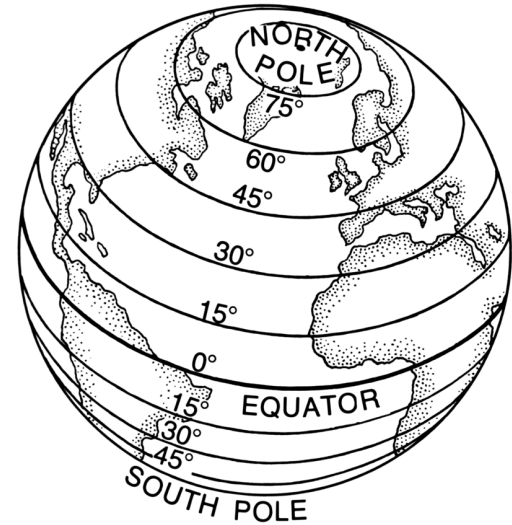
- A. Saudi Arabia shares its eastern border with Sudan.
- B. Saudi Arabia is south of Ethiopia.
- C. Saudi Arabia is north of Yemen.
- D. Saudi Arabia is between Djibouti and Somalia.

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° N.

Which of the following describes a line of latitude?



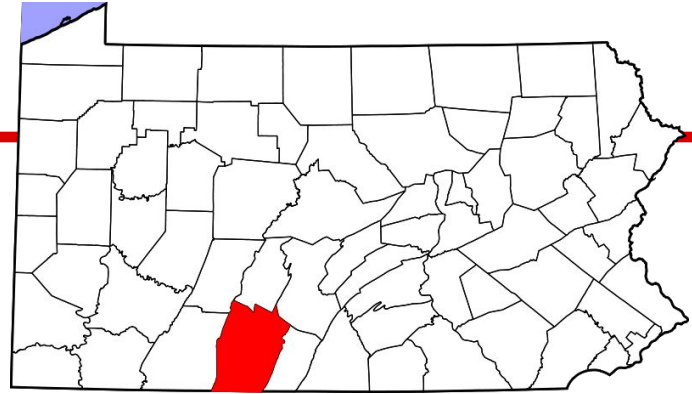
- A. 30° W
 - B. 90° S
 - C. 40° E
 - D. All of the above
-

Question 3

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.



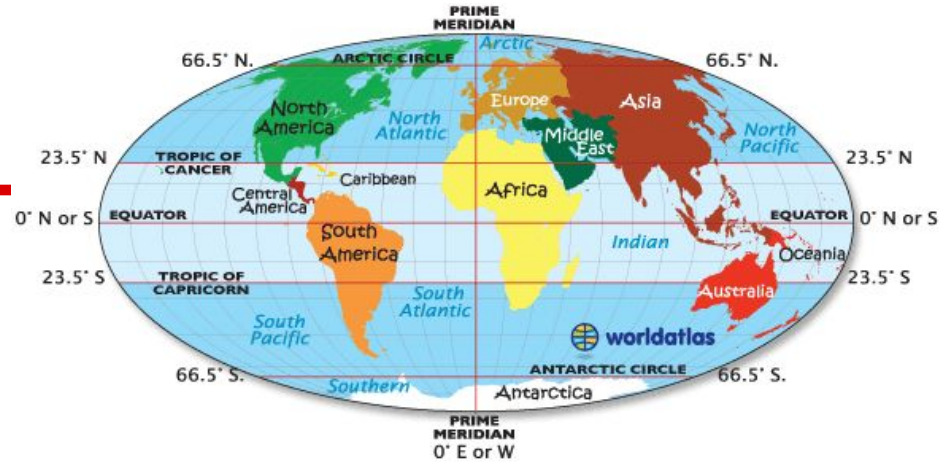
Bedford, Pennsylvania, is very close to the 40°N line of latitude but not exactly on it. Which of these is true?

- 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.

Question 4

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

Question 5

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

Northern Hemisphere



Eastern Hemisphere



Southern Hemisphere



Western Hemisphere



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?

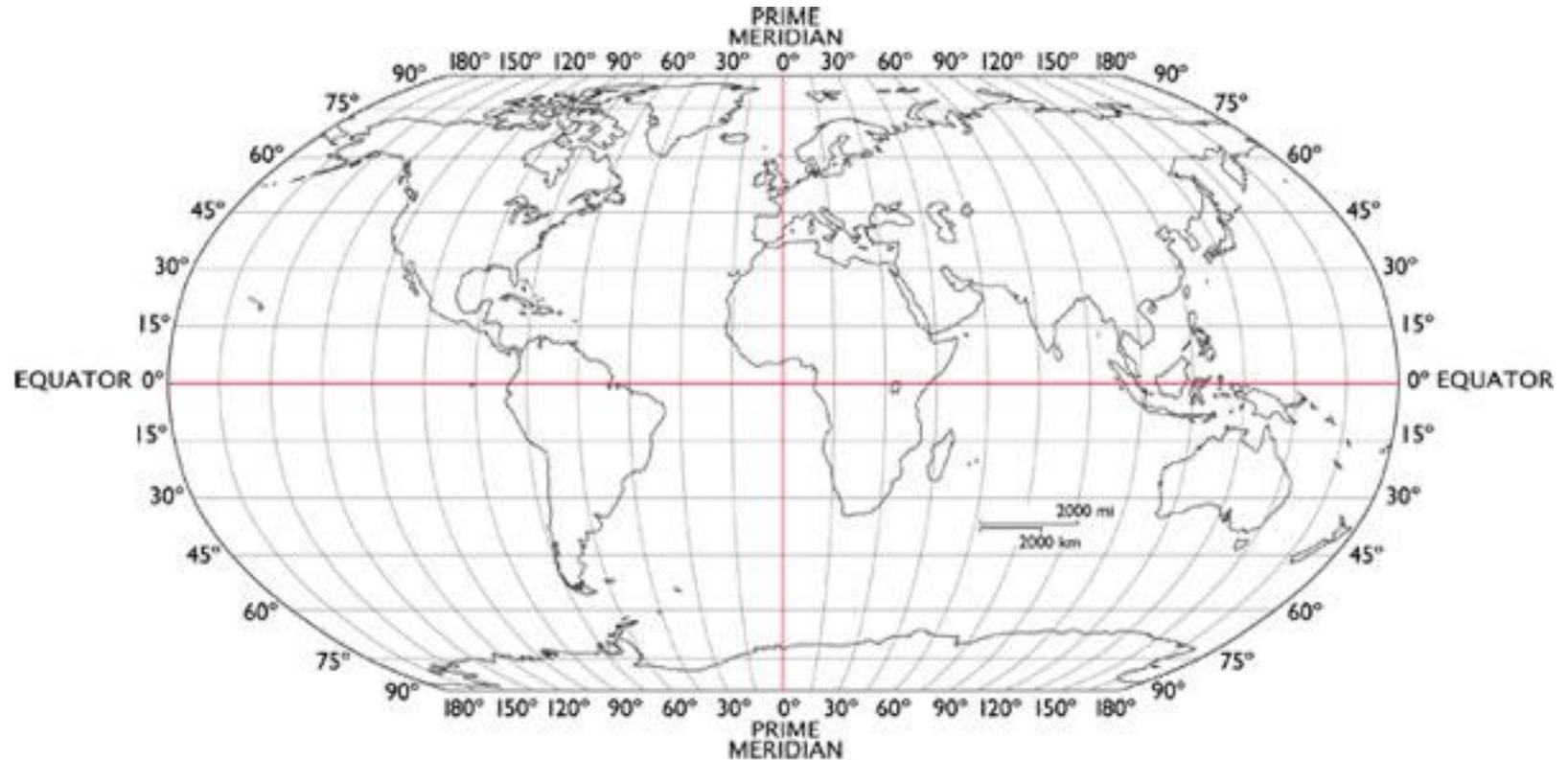
Map Skill Review

- 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.

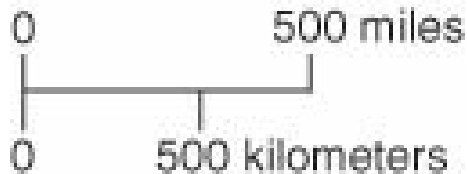
- Legend - A guide identifying what the map's symbols and colors represent.
 - Compass - indicates the cardinal directions and the intermediate directions.
 - Absolute Location - The latitude lines (N or S of the Equator) and the longitude lines (W or E of the Prime Meridian).
-

Absolute Location

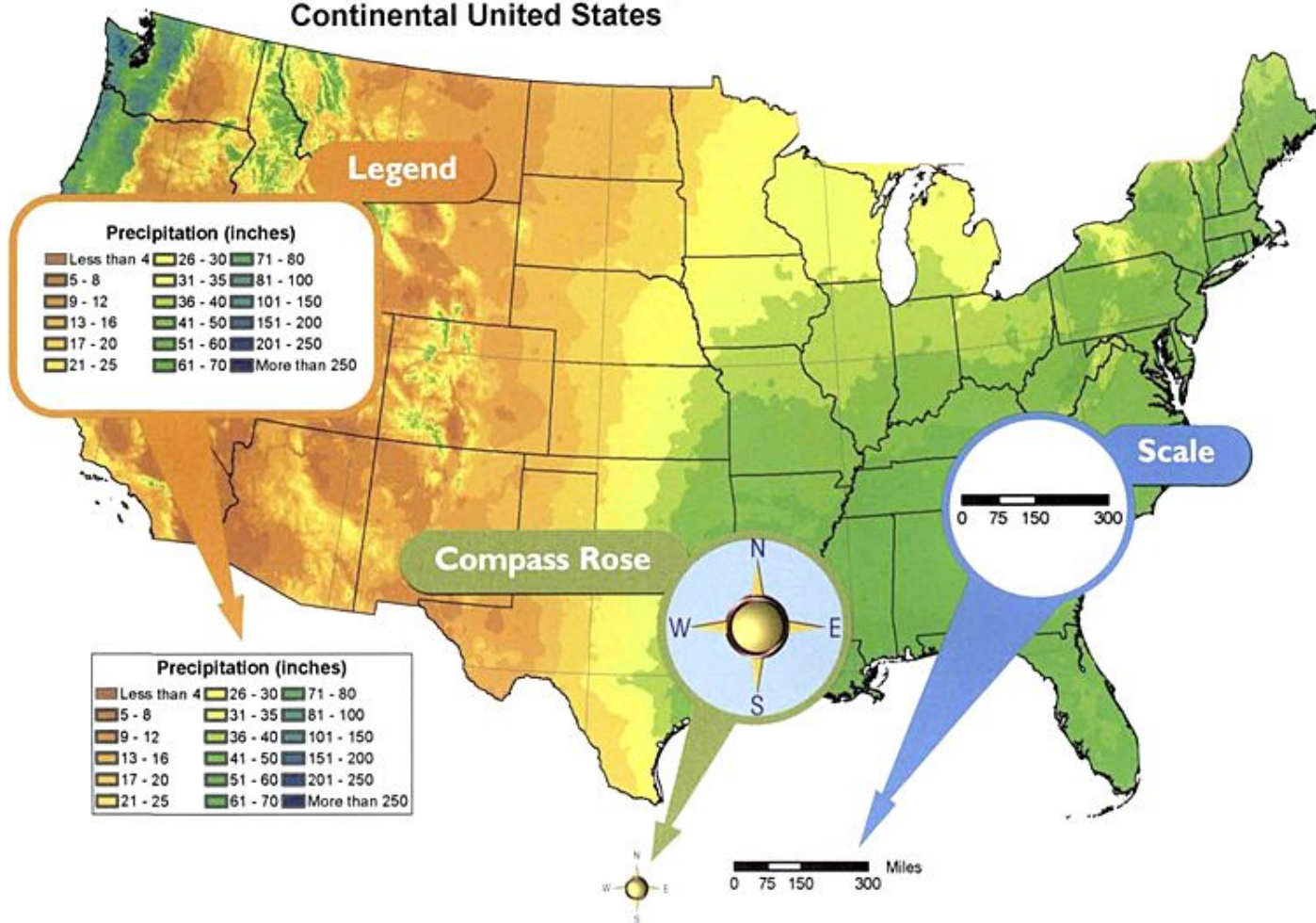


L.C.A.T.S. Cont.

- 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.



1971 - 2000 Average Annual Precipitation Continental United States



Auckland ZOO

- First Aid
- Information
- Restrooms
- Nappy Change Station
- Food/Cafe
- Gift Shop
- Drinking Fountain
- Parking
- Wooden Boardwalk
- Stairs
- Sealed Path
- Dirt Path
- No Public Access
- Construction Zone

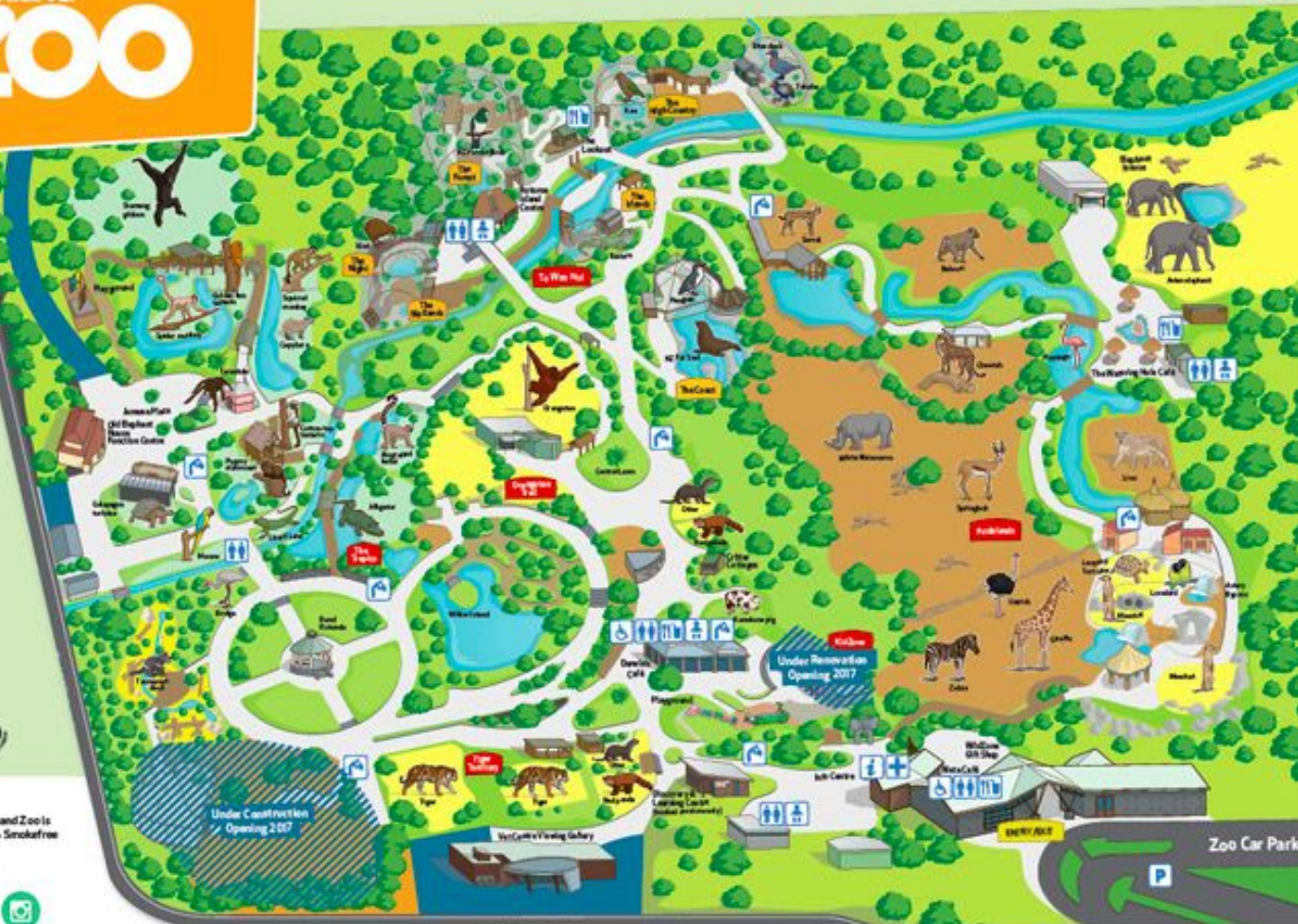


Auckland Zoo is 100% Smokefree

connect with the zoo



Mixons Road Western Springs Auckland
 Phone +64 9 360 3889 Enquiries +64 9 360 3800



Overflow parking across the road

Zoo Car Park

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

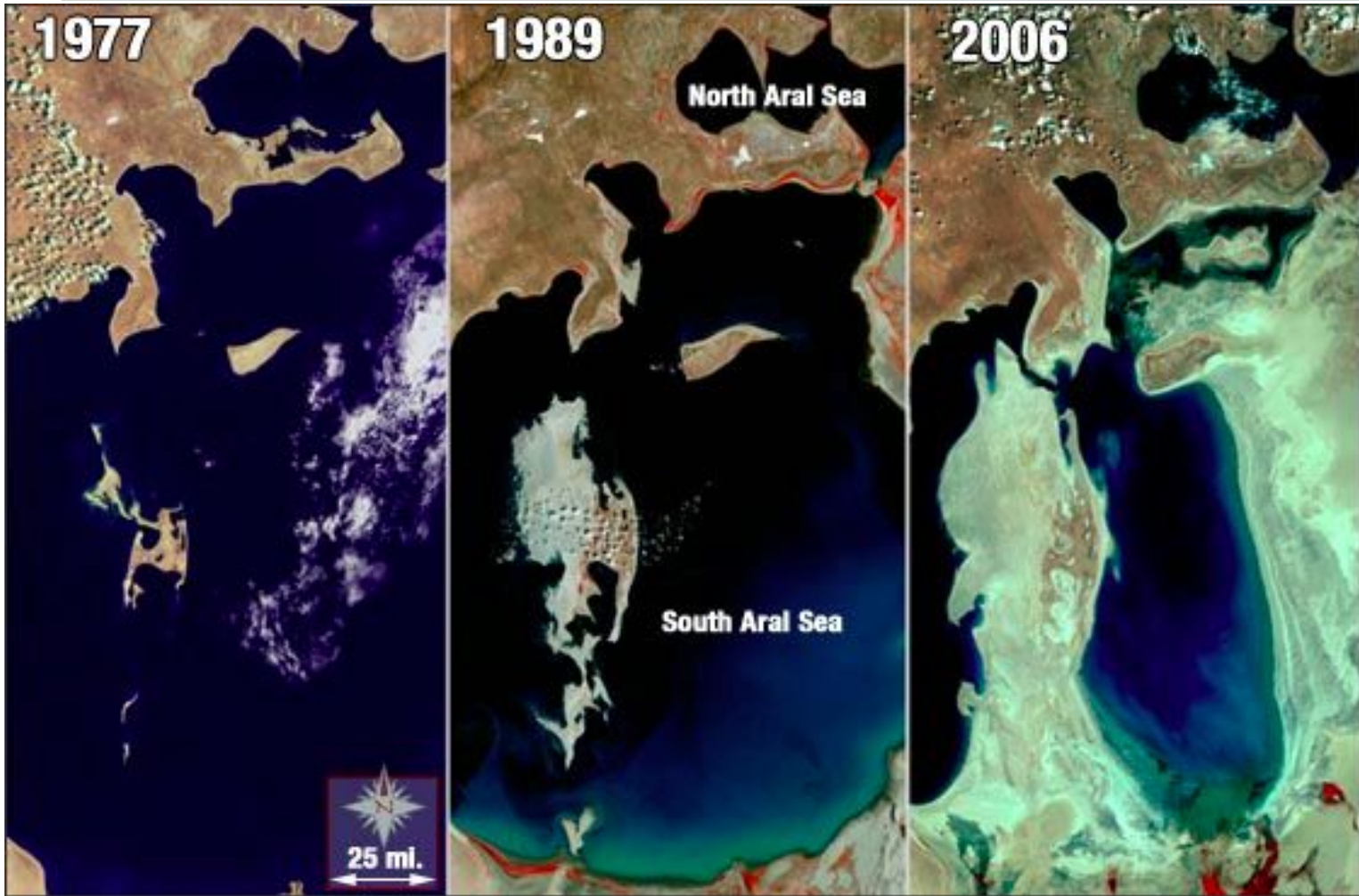
- Some examples of reference maps include:
 - Road maps, classroom wall maps, political maps , physical maps, satellite map and topographic maps.
 - A topographic map is a special reference map that shows coastlines, cities, and rivers that use shades of different colors to show elevation differences.
-



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



Topographical Map



Political Map



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

Topographical Map



Political Map

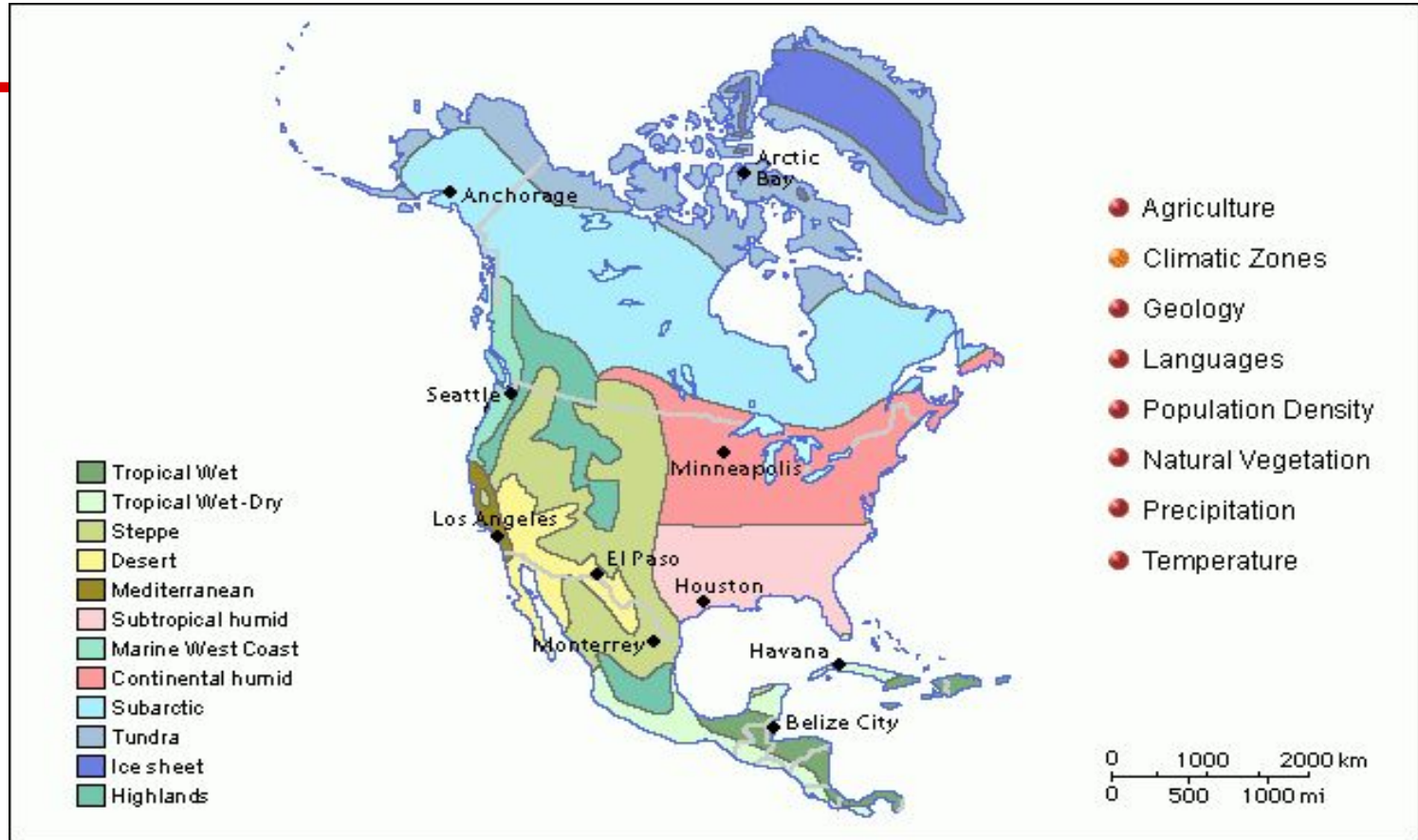


Thematic Maps

- 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



Random Thematic Maps





ACROSS THE WORLD



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.

* Price 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 kind of the extent to which market exchange rates result in goods costing the same in different countries.

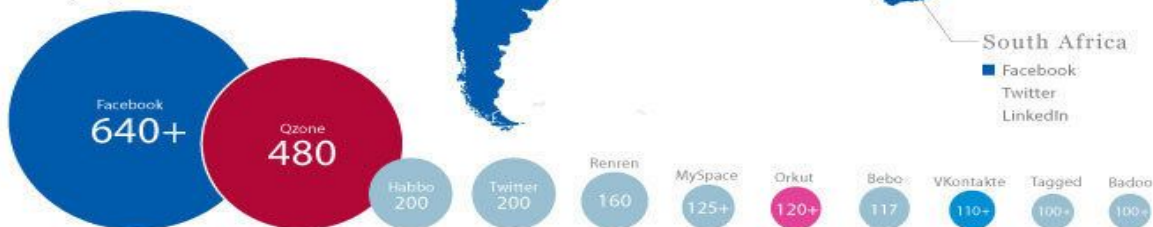
The world map of social networks

Dominating networks according to country

- Facebook
- QZone
- Vkontakte
- Odnoklassniki
- Orkut
- Mixi
- Zing
- Cloob
- Draugiem
- No data

Data for February 2011
Source Alexa.com

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



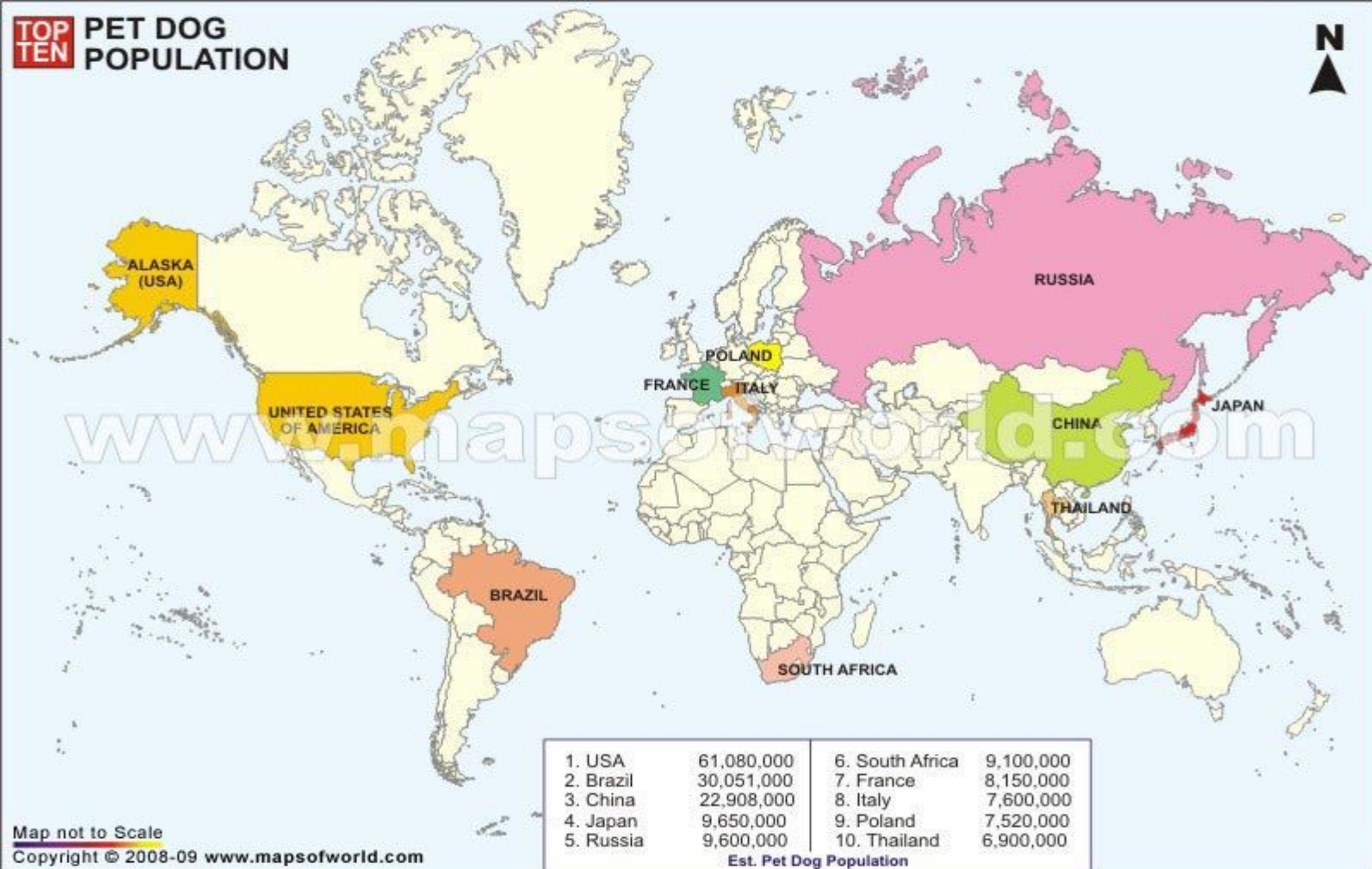
The circle's diameters correspond with the figure

Data from various sources for July 2010 - February 2011



Australia
Most popular social networks in the country
Facebook, Twitter, LinkedIn
Data for February 2011
Source Alexa.com

TOP TEN PET DOG POPULATION



1. USA	61,080,000	6. South Africa	9,100,000
2. Brazil	30,051,000	7. France	8,150,000
3. China	22,908,000	8. Italy	7,600,000
4. Japan	9,650,000	9. Poland	7,520,000
5. Russia	9,600,000	10. Thailand	6,900,000

Est. Pet Dog Population

Map not to Scale

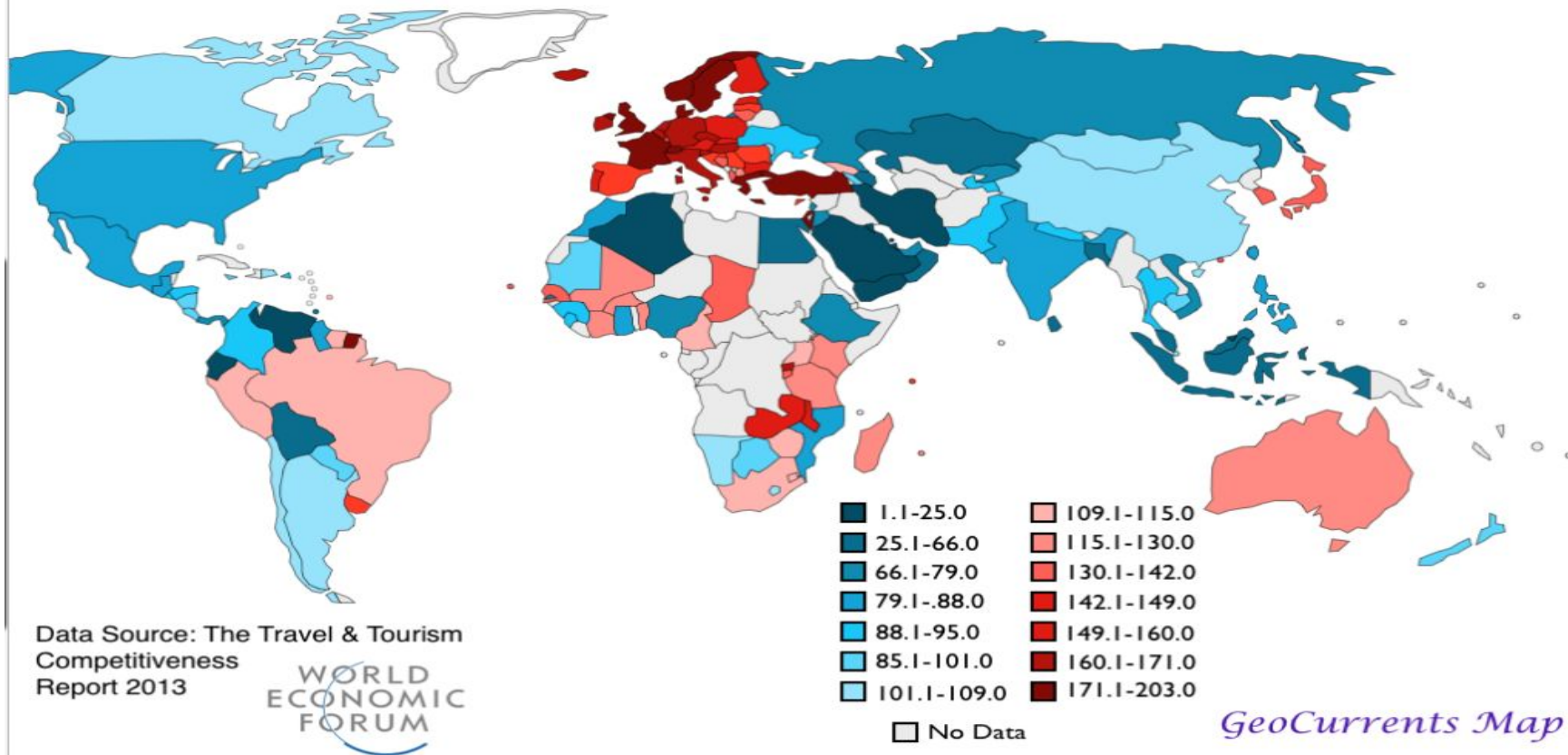
Copyright © 2008-09 www.mapsofworld.com

Top Messaging Apps by Q3 2015 Monthly Active Users iPhone and Android Phone



Fuel price levels

Retail diesel fuel prices,
US cents per liter 2010 or most recent



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: _____/1

An accurate Legend: _____/6

A compass with the cardinal and intermediate directions: _____/1

Label one surrounding body of water, and Label one city: _____/2

A correctly colored map: _____/5

Map is neat with correct spelling: _____/2

Three questions written on the back of this rubric that relate to the information on your map. Please include the answers as well. _____/6

Total: _____/25 points

Thematic Map Rubric
