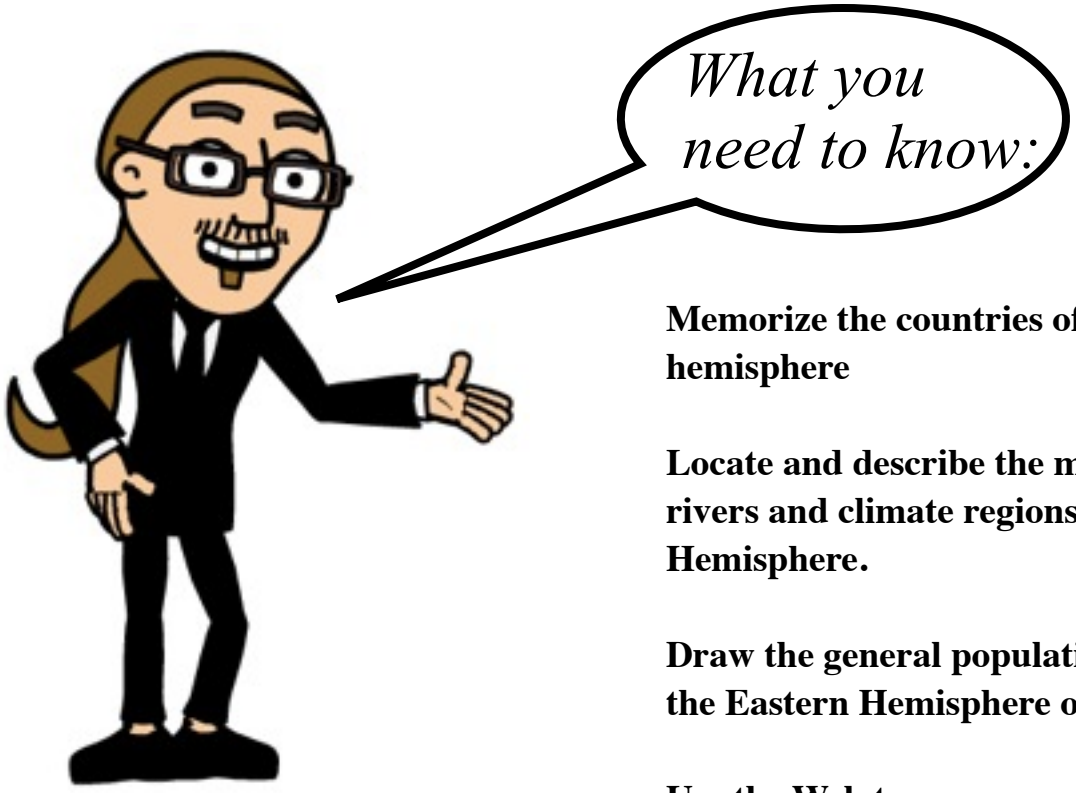
UNIT Seven: Mapping the modern world



Memorize the countries of the eastern hemisphere

Locate and describe the major landforms, rivers and climate regions of the Eastern Hemisphere.

Draw the general population distribution of the Eastern Hemisphere on a map

Use the Web to compare and contrast the surface features and vegetation of the continents of the Eastern Hemisphere.

Use climate graphs for locations at different latitudes and elevations in the world to answer geographic questions

Section one - Landforms

Section two - Population

Section three-Vegetation

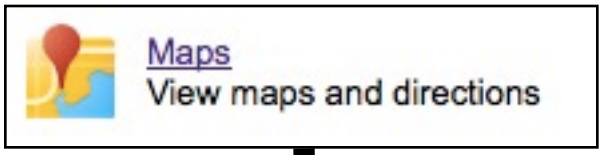
Section four- Distance

Section five- Climate and Precipitation

How to make your UNIT 7 map

Login to your ATA email:

click more -> even more -> maps

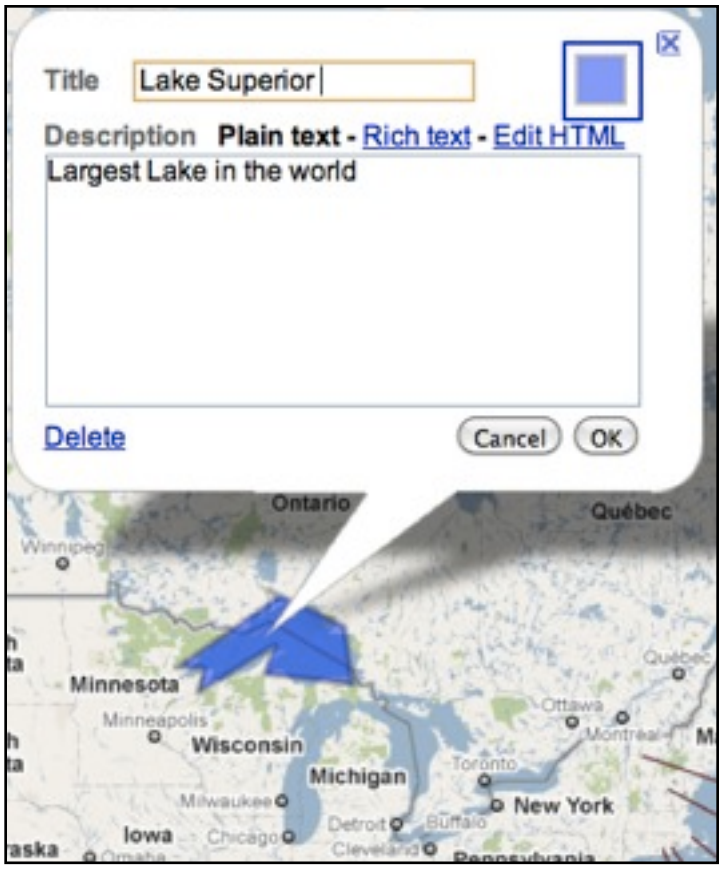


Section one: Landforms

Directions:

- Highlight each landform on your UNIT 7 google map using the background color on the chart
- Include AT LEAST one fact for each item
- BONUS POINTS - if you add pictures!

EXAMPLE →



Asia	Africa	Europe	MIddle East
Himalaya Mts Gobi Desert Indus River Yangtze river Yellow river Mekong River Grand Canal	Lake Victoria Nile River Mt Kilimanjaro Serengeti Sahara Desert Kalahari Desert Great Rift Valley	Carpathian Mts Pyrenees Mts Apennines Mts Volga River Rhine River Danube River Black Sea Caspian Sea Baltic Sea Mediterranean Sea	Red Sea Tigris River Euphrates River Persian Gulf Gulf of Aden Aswan High Dam

Section two: Population

Use wolfram alpha to add the following information to your

UNIT 7 map

http://www.wolframalpha.com/

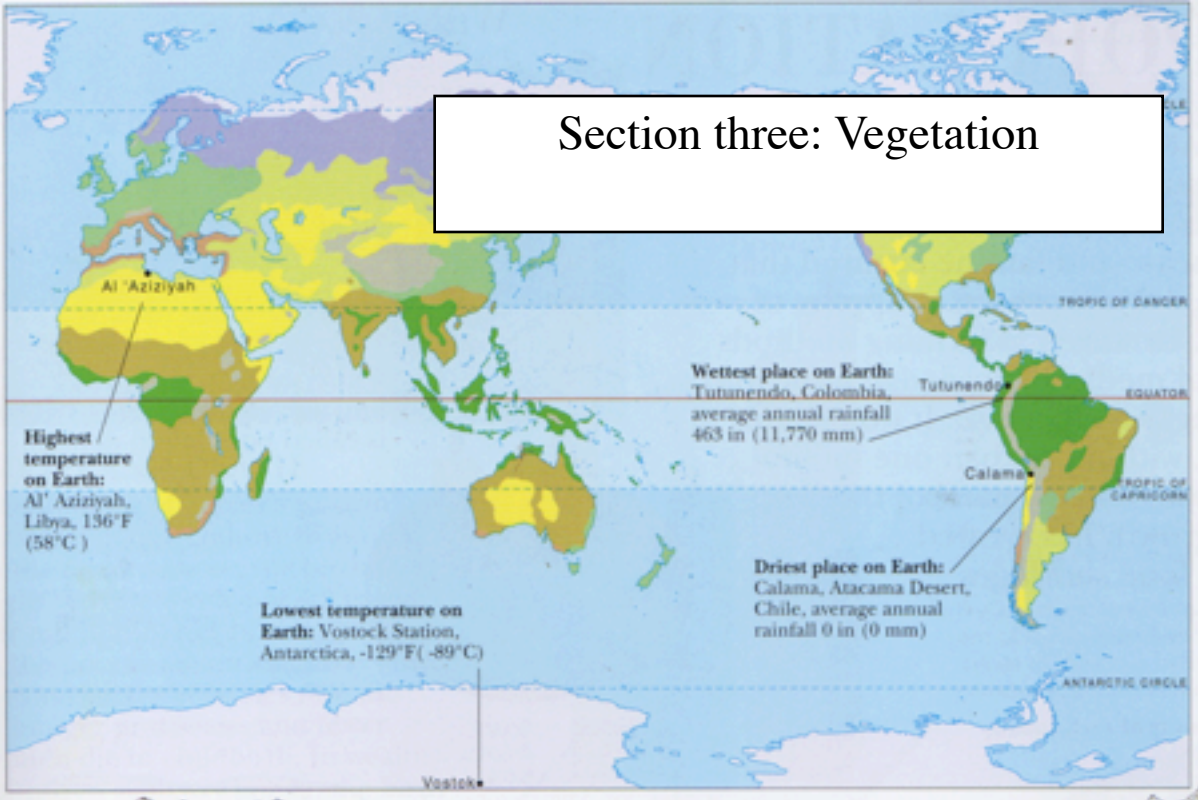
"largest population country"
put the top ten on your map

"largest population cities"
put the top ten on your map

"life expectancy"
top five and bottom five

"gdp"
top five

Section three: Vegetation



VEGETATION ZONES

Scientists divide the Earth into a number of different vegetation zones, also known as "biomes," shown on the map, left. The plant and animal life found in each zone depends on the region's climate, landscape, and latitude. Over millions of years, plants and animals have adapted to life in this range of climates, often developing special features that have helped them to survive. The map also highlights how similar landscapes, such as taiga or desert, occur at the same latitude across the world.

POLAR AND TUNDRA

The areas around the North and South poles are freezing cold and covered in ice. South of the North Pole lies a region called the tundra, where the lower layers of soil are permanently frozen. Hardy mosses, lichens, and shrubs are the only plants that can survive here.

TAIGA

In Russian, the word taiga means "cold forest." It describes the vast evergreen forests that stretch across northern Canada, Scandinavia, and the Russian Federation. Evergreen trees, such as fir, spruce, and pine, are well-adapted to the long, snowy winters.

MOUNTAIN REGIONS

The higher up a mountain you go, the colder it gets. Trees and plants grow on the lower slopes of many mountains. But above a certain level, called the tree line, it is too cold and windy for plants to survive. High mountain peaks are often covered in snow all year round.

TEMPERATE FOREST

Much of the land in northern Europe and North America was once covered by deciduous forests (trees that lose their leaves in winter). Most of these have now been cut down. Deciduous trees grow well in temperate climates where it is never very hot or very cold.

MEDITERRANEAN

Areas with a Mediterranean climate have hot, dry summers and cool, wet winters. They include land around the Mediterranean Sea and other similar places, such as California in the US. Plants and trees, such as olives, have adapted to survive the lack of water in summer.

DRY GRASSLAND

Vast grasslands cover the centers of some of the continents. They include the South American pampas and the North American prairies. They have hot, dry summers and very cold winters. Large parts of these grasslands are now plowed for wheat or used to raise cattle.

TROPICAL RAIN FOREST

Around the equator, the climate is hot and wet all year round, and providing ideal conditions for lush, green tropical forests to thrive. The world's rain forests may contain 50,000 different types of trees, as well as millions of other species of plants and animals.

HOT DESERT

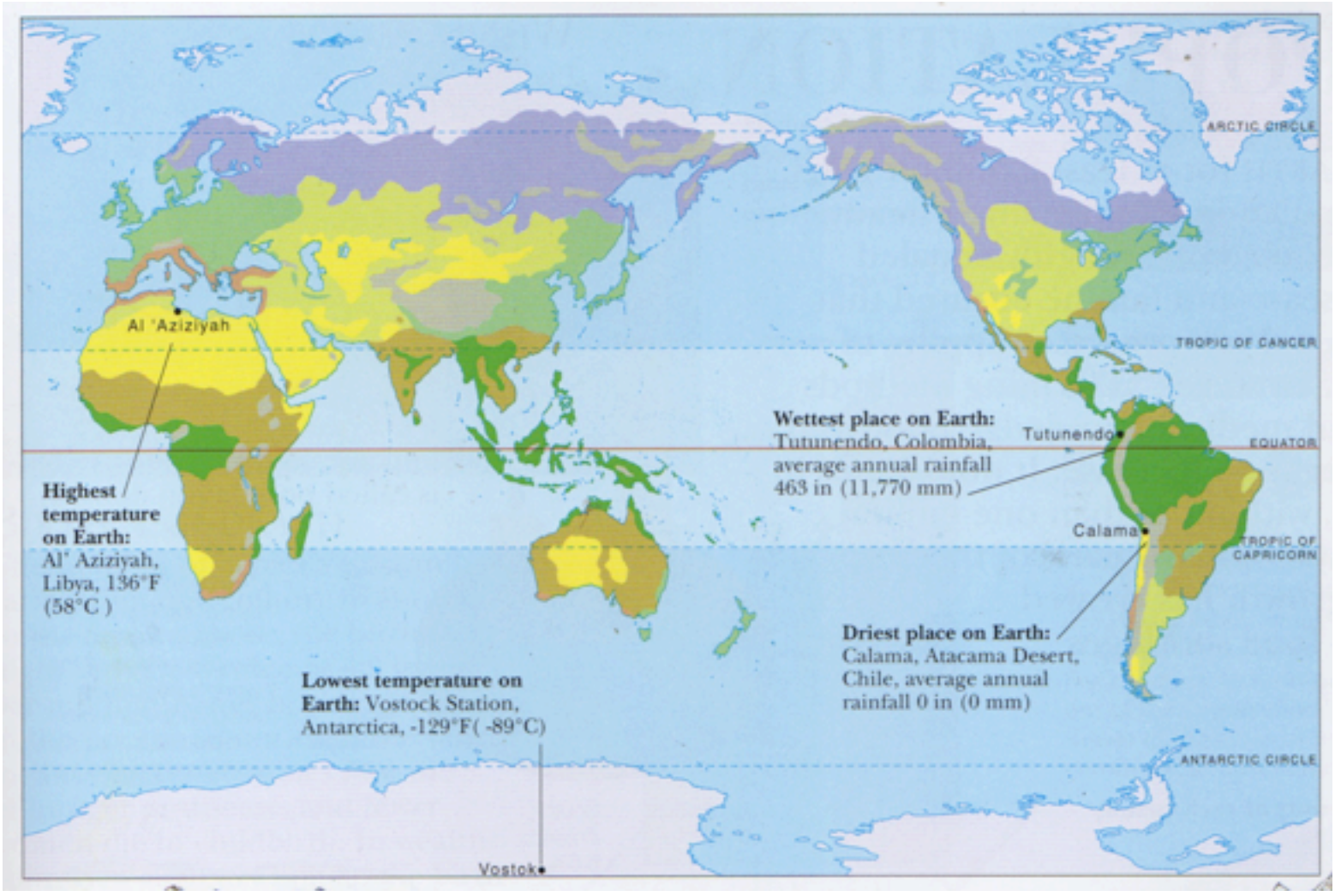
Deserts are the hottest, driest places on Earth. Despite heat during the day, temperatures may plunge to below freezing at night. In some deserts, years pass without rain. Deserts often contain sandy soil that can only support plants such as cacti.

TROPICAL GRASSLAND

Between the hot deserts and tropical rain forests lie tropical grasslands, such as the African savanna. The climate here is always hot, but the year is divided into a wet and a dry season. Tall grasses, as well as low trees and shrubs, grow in these hot areas.

Use the vegetation chart and the map bellow to help you map the 9 different vegetation zones on the your UNIT 7 google map.

Label each zone with the correct name and color. ONLY map the Eastern Hemisphere!



Section four: Distance

Log into email
Go to maps
Enable distance measurement tool in labs New!

Practice!!!!

Helsinki to Copenhagen

Detroit to Cairo

Lagos to Cape Town

Seoul to Ha Noi

Mumbai to Kulkata

Osaka to Tokyo

Paris to London

Madrid to Beijing

Xian to Warsaw

New Delhi to Manila

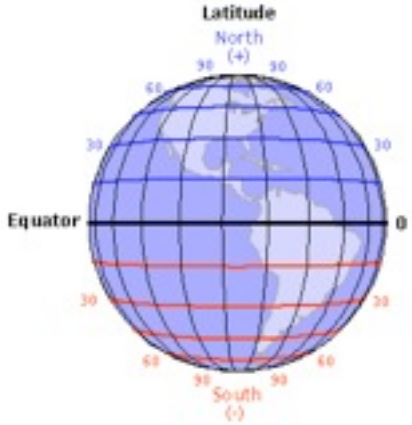
Pyongyang to Osaka

ONCE YOU HAVE PRACTICED:

TAKE THE **GEO DISTANCE QUIZ**

*BAR WILL BE SET AT 75% DO WELL THE **FIRST TIME**!*

Section five: Climate and Precipitation



Does Latitude Affect Climate?

Latitude does exert a large amount of control over any given area's climate. In fact, latitude is probably the single most important determining factor in climate. While other variables such as weather patterns and elevation certainly do have a large impact on any geographical area, nothing matters quite so much as latitude. For proof of this one only needs to compare areas of extreme northern or southern latitude, such as the North Pole or South Pole, with places that lie along the equator, such as Colombia or Somalia.

Latitude's Effect on Climate

The latitude of any given area affects that area's climate because it dictates the intensity and duration of sun exposure. As the Earth orbits the sun it also wobbles slightly on its axis. At times the Northern hemisphere is closer to the sun than the Southern hemisphere and at some times it is further from it. When an area is closer to the sun the days are longer and the sun's rays are stronger. This heats the climate. This is the reason that places experience seasonal variation in temperature. Those locations close to the equator, however, exist in a nearly constant state of summer because they always get relatively strong sunlight and have long days.

Effects of Altitude on Climate and Vegetation

For each 1,000 foot rise in altitude there is a 4°F drop in temperature. For example, if at sea level the average temperature is 75°F, at 10,000 feet the average temperature would be only 35°F. This has a dramatic effect on plant and animal distribution.

In tropical mountainous areas several types of forests occur. Montane forests are cooler and may contain deciduous trees. At sea level, there are lowland rainforests and mangroves. At cloud level, moist, dripping cloud forests may occur. They are cooler than lowland forests. High mountains may also have alpine, tundra, and snow covered peaks.

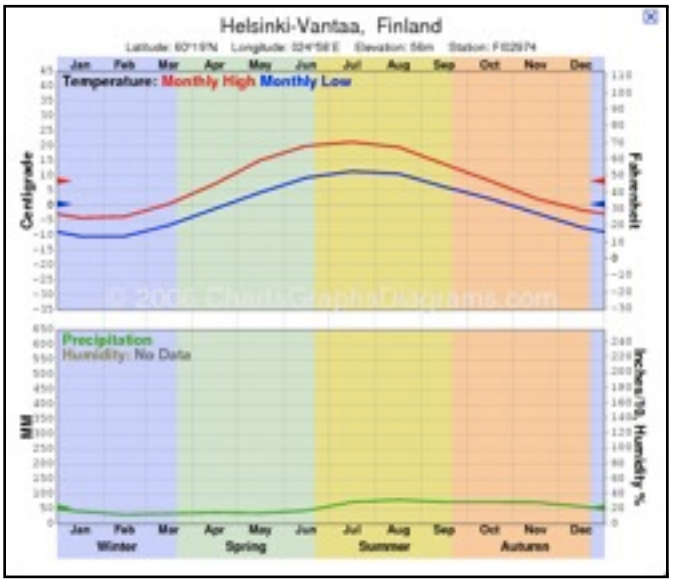
Questions:

What is latitude? How does it affect climate?

What is altitude? How does it affect climate and vegetation?

http://www.climate-charts.com/climate-map.html

Use climate charts to answer the following questions:



Which has the HOTTEST summers?
(Moskva, Russia) (Marrakech, Morocco) (Reykjavik, Iceland) (Cape Town, South Africa)

Which has the HOTTEST summers?
(Khartourn, Sudan) (Marrakech, Morocco) (Bangkok, Thailand) (Cape Town, South Africa)

Which is the COLDEST during the winter?
(Marrakech, Morocco) (Reykjavik, Iceland) (Bangkok, Thailand) (London, United Kingdom)

Which is the COLDEST during the winter?
(Kyoto, Japan) (Doha, Qatar) (Bangkok, Thailand) (London, United Kingdom)

Which city has the LEAST overall precipitation ?
livepage.apple.com(London, United Kingdom) (Khartourn, Sudan) (Bombay, India) (Vitirn, Russia)

Which city has the MOST overall precipitation ?
(Rome, Italy) (Khartourn, Sudan) (Bombay, India) (Singapore, Singapore)

click **answer online**

Use climate charts to put the following on your UNIT 7 map:

Country with the HOTTEST temperature ever recorded

Country with the COLDEST temperature ever recorded

Country with the MOST precipitation ever recorded

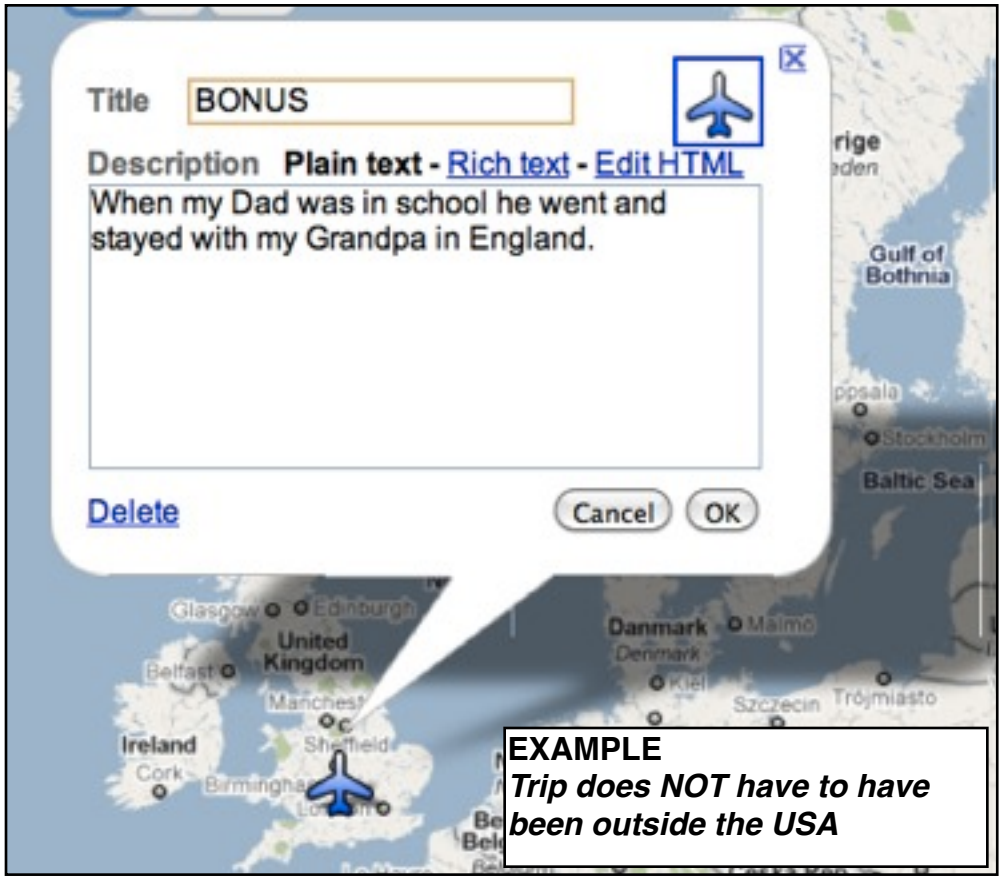
Country with the LEAST precipitation ever recorded

Bonus!!!

Ask you Parents/Grandparents/Guardian where they have traveled. Put the places on your UNIT 7 map with some information or a story about when your family member traveled there.

If they have been to lots of place, map them ALL!

Use this symbol:



PASS YOUR MAP TESTS!!!