



Gregory Felsen

Hey 4-H'ers! The spotlight is on me, so I am going to make it shine. My name is Gregory Felsen and I am the 4-H Youth Development Extension Agent in La Plata County. La Plata County is located in southwest Colorado and borders New Mexico State to the south. My office is located in Durango, CO. It is my fourth year working with CSU-Extension, and it was quite the journey to make it to where I am today.

It all started way back on February 15, 1979 when I came into the world in Brooklyn, NY. However, the big city life didn't last long. A few months after I was born, my family moved to my father's hometown of Wellsville, NY where I was raised.

My educational pursuits would then take me to finish my High School at Georgetown Prep School in North Bethesda, MD. Then I started college at the University of San Diego before transferring to Northern Arizona University in Flagstaff, AZ, where I received a B.S. Public Planning with a Land Use emphasis.

After undergraduate school, I decided to get some wonderful life experiences. I moved to Seattle, WA for a year and worked with an organization called Earth-corps doing environmental restoration work. Next, I took a year and travelled and worked in Golden Bay, New Zealand, Brisbane, Australia, Bali, Indonesia, Bangkok, Thailand, Luang Prabang, Laos, and Siem Reap, Cambodia. It was quite an adventure. I returned to the States to take a year and work on a goat farm in Jacksonville, Oregon.

With all this great experience, I decided to put it to good use and join the US Peace Corps. I served as a Community Health and Economic Development volunteer in the Country of Lesotho, Africa. I worked at a local high school developing sustainable agriculture projects to raise money for

STEM Connections

Connecting Science, Technology, Engineering, and Math concepts to our everyday lives.

Where in the World is Gregory Felsen!

http://solarsystem.nasa.gov/multimedia/gallery/VIIRS_4Jan2012.jpg

The 4-H National Youth Science Day Maps and Apps was written by our very own Claire Dixon (Front Range STEM Specialist) and Christy Fitzpatrick (former NE Counties STEM Specialist) in collaboration with folks on the CSU Campus, ESRI, the company that makes ArcGIS software, and US Geological Survey's National Map Project. In honor of their work, we will focus the next several STEM Connections on mapping, starting with Mr. Felsen, world traveler!

Maps use Cartesian coordinate system that pinpoints a specific location on a plane. The first **latitude/longitude** system was proposed by Eratosthenes in the 3rd century BC. Ptolemy (90-186 AC) of Alexandria was the first to use a grid system in his book *Geographia*. Al-Biruni (973-1048 AC), considered one of the most brilliant medieval Islamic scholars, developed the **latitude** and **longitude** system we use today.

When looking at a map, **latitude** lines run horizontally, are **parallel** and equal distance from each other. Degrees **latitude** are numbered from 0° at the equator to 90° at the North Pole and -90° at the South Pole (to indicate the Southern Hemisphere, they are written as a minus or indicated with S for south). Each degree of **latitude** is approximately 69 miles (111 km) apart.

The vertical **longitude** lines are also known as **meridians**. They converge at the poles and are widest at the equator (about 69 miles or 111 km apart). Zero degrees (0°) **longitude** is located at Greenwich, England. The degrees continue 180° east and 180° west where they meet and form the International Date Line in the Pacific Ocean.

To precisely locate points on the earth's surface, degrees **longitude** and **latitude** have been divided into minutes ('') and seconds (""). There are 60 minutes in each degree. Each minute is divided into 60 seconds. For example, the U.S. Capitol is located at 38°53'23"N (**latitude**), 77°00'27"W (**longitude**). You would read it: 38 degrees, 53 minutes, and 23 seconds north of the equator (almost 39°N) and 77 degrees, no minutes and 27 seconds west of Greenwich UK (about 77°W).

EXPLORE IT - DESIGN IT - DO IT

We are going to find all the locations that Gregory has lived and visited and mark them on the world map (found in this month's 4-H newsletter) and track his travels by drawing a line between his start and end point.

- Use a pencil so that you can erase if you make a mistake.
- Latitude is given first with N or S indication. Longitude is given second with W or E indication (from Greenwich, England). (Cont. on map pg.)

orphaned and vulnerable children affected by the HIV/Aids epidemic.

While in Africa, I also got to travel to such countries as South Africa, Namibia, Mozambique, Malawi, Tanzania, Kenya and Egypt. On my journey home to the States, I also stopped at Frankfort, Germany to see my brother who is in the US Air Force.

After getting back to America, I lived in Asheville, NC where I obtained my Master's Degree in Agriculture Education from North Carolina A&T State University. This opened my eyes to the work of Extension. I saw a job announcement for a position in Durango and just knew I needed to be back out to the Rocky Mountain West. Life is Journey...Enjoy the Ride!



Age Appropriate:
4th—HS grades

Time Required:
About 1 hour

Materials:

- Ruler
- Pencil
- Computer
- Printer

The Set-up:

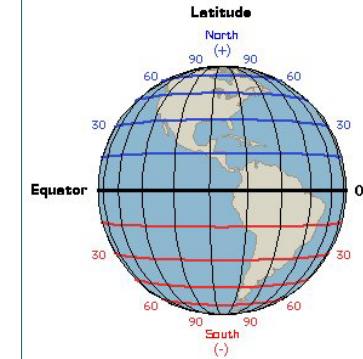
- Print map

The Clean-up:

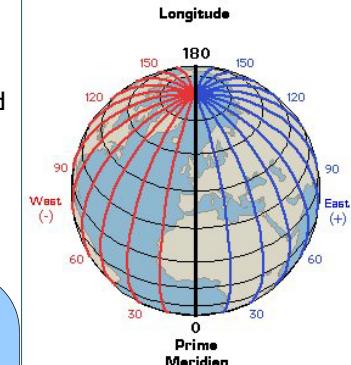
- Put away pencil and ruler

Power Words

- **latitude**: vertical imaginary lines on the Earth that converge at the poles and are widest at the equator

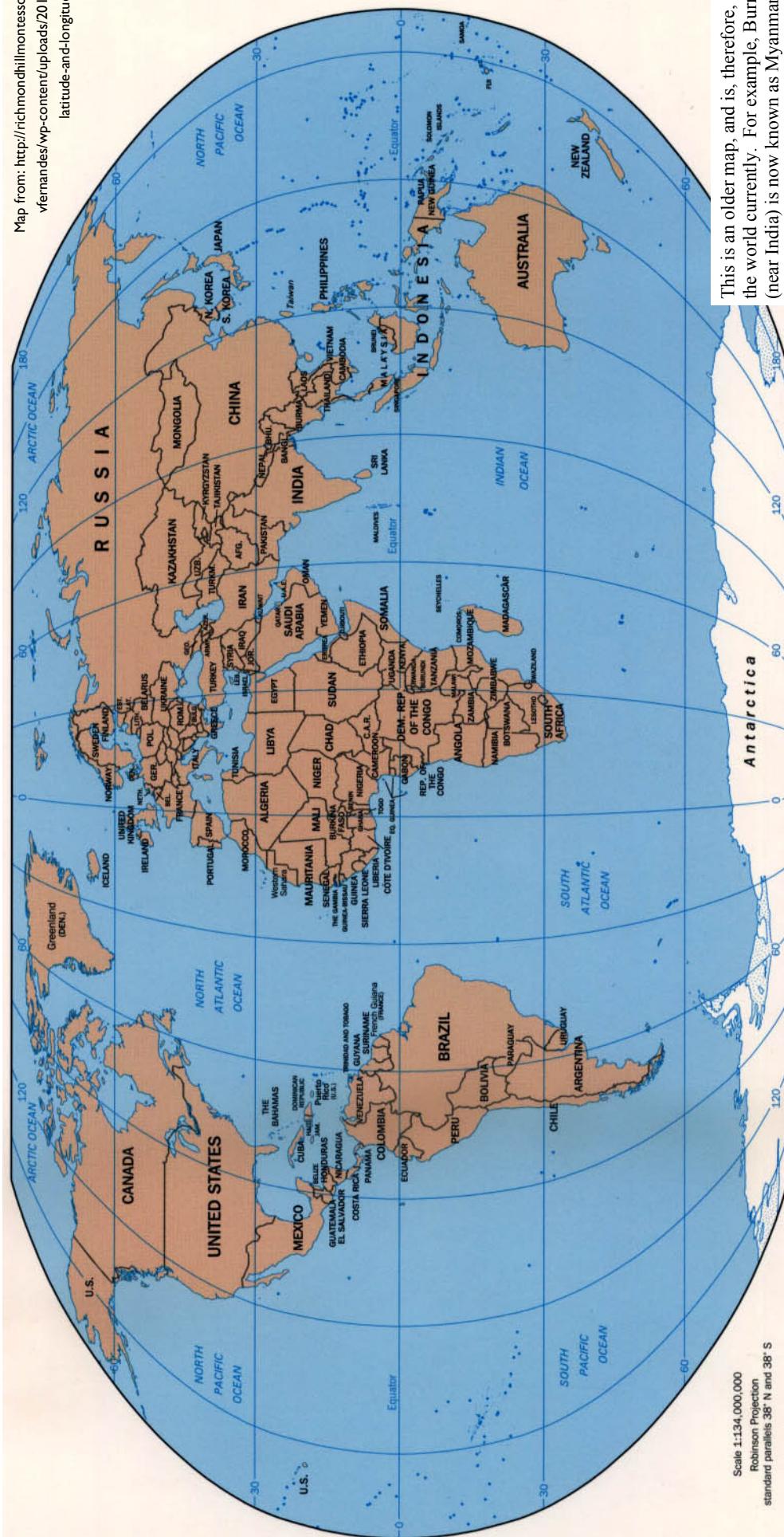


- **longitude**: horizontal imaginary lines on the Earth that run parallel north and south of the equator



- **meridian**: a latitude line
- **parallel**: side by side and having the same distance continuously between them

<http://geographyworldonline.com/tutorial/lattitudelongitude.jpg>



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- The coordinates will be rounded to minutes.
- Locate Brooklyn, NY with the coordinates: 40°37'N; 73°7'W. The map latitude shows 30° and 60°, but not 40°. Estimate about 1/3 up from 30°, which is about 40°. Likewise, the map longitude shows 60°, a line without a number, and then 120°. The unnumbered line is halfway between 60° and 120°, or 90°. Your longitude is almost 74°. Estimate to the right of the 90° about half way between 60° and 90°, which is about 75°. Put a dot on the spot where imaginary latitude and longitude lines intersect.
- Approximate is just fine. If we wanted to exactly pinpoint his address, we would need to use a different scaled map, i.e. a map of Brooklyn, NY.
- Locate Gregory's next move to Wellsville, NY: 42°7'N; 77°56'W. Put a dot approximately on that spot.
- With your ruler, connect the two dots from Brooklyn to Wellsville.
- Repeat these steps with each new coordinate listed to the right, finding each location by estimating the latitude and longitude lines, and put a dot where they intersect.

Where in the World is Gregory Felsen?

This is an older map, and is, therefore, not the world currently. For example, Burma (near India) is now known as Myanmar.

1. Brooklyn, New York: 40°37'N; 73°57'W
2. Wellsville, New York: 42°7'N; 77°56'W
3. North Bethesda, Maryland: 38°59'N; 77°6'W
4. San Diego California 32°42'N; 117°09'W
5. Flagstaff, Arizona 35°11'N; 111°37'W
6. Seattle, Washington 47°36'N; 122°19'W
7. Golden Bay, New Zealand 40°40'S; 172°50'W
8. Brisbane, Australia 27°28'S; 153°01'E
9. Bali, Indonesia 8°39'S; 115°13'E
10. Bangkok, Thailand 13°45'N; 100°28'E
11. Luang Prabang, Laos 19°53'N; 102°08'E
12. Siem Reap, Cambodia 13°21'N; 103°51'E
13. Jacksonville, Oregon 42°18'N; 122°58'W
14. Lesotho, Africa 29°30'S; 28°30'E
15. South Africa 29°00'S; 24°00'E
16. Namibia 22°00'S; 17°00'E
17. Mozambique 18°05'S; 35°00'E
18. Malawi 13°30'S; 34°00'E
19. Tanzania 6°00'S; 35°00'E
20. Kenya 1°00'N; 38°00'E
21. Egypt 27°00'N; 30°00'E
22. Frankfort, Germany 50°6'N; 8°41'E
23. Asheville, North Carolina 35°34'N; 82°33'W
24. Durango, Colorado 37°16'N; 107°52'W