

Group Members:

Period:

Station #1: Measuring distances.

The scale on a map is the relationship between the actual real world distance on the globe and the distance on the map. Scale is represented on every reliable map in one of three ways: graphically, as a ratio or a sentence.

Your job: Using your feet, fingers or hands measure the distance between the locations below on both the small map and the giant map. When you have finished use google to determine the exact distance. (pay attention to the route between the two places you are measuring. **All measurements should be in miles.**

Locations	Small map distance	Giant map distance	Google map distance
Miles City & Billings			
Wolf Point & Glasgow			
Cut Bank & Hardin			
Jordan & Deer Lodge			
Butte & Missoula			
Glacier NP & Yellowstone			
Plentywood & Dillon			
Broadus & Eureka			

- 1) **Were all of your measurements about the same? Explain why they were or were not similar distances.**
- 2) **Do you trust the measurements of Google Maps more than the measurements you made on the map?**
- 3) **Would you rather travel by land, river or road between these locations? Explain why.**
- 4) **Of the three types of representation of scale which would you prefer to use?**

Station #2: Using the Grid and Latitude and Longitude

Identify the city or other feature using the grid or latitude longitude measurements. Then answer the questions below.

Grid	Lat / Long	Type of place	Place
6C		Transportation related	
2F		River	
SF		Small town	
2A		Mountain Range	
6J		River	
	46.SN, 104W	City	
	46N, 114W	City	
	47.5N, 112W	City	
	46.SN, 108.SW	City	

- 1) What lines of latitude and longitude are parts of Montana's border? Describe the border (East, west etc.) and the specific line of latitude or longitude.**
- 2) Do lines of latitude increase or decrease the closer you get to the equator? What happens after you pass the equator?**
- 3) Do lines of longitude increase or decrease as you travel toward New York? If the earth is a sphere where do they stop? Shouldn't they go on forever?**
- 4) If you were trying to ensure someone was going to arrive at their destination would you give them the location in latitude and longitude or grid coordinates?**

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Station #3: Scavenger Hunt

Using the place cards read the clues about the locations. Find the locations on the giant map. To keep track of your work complete the chart below. Use the grid or latitude or longitude measurements on the back as a last resort. Answer the questions below.

Place	Location	Question(s)
One		
Two		
Three		
Four		
Five		
Six		
Seven		
Eight		
Nine		
Ten		
Eleven		
Twelve		
Thirteen		
Fourteen		
Fifteen		

- 1) Which of the locations you found have you visited before?**

- 2) Which had you never heard of?**

- 3) Which would you like to visit in the future? Explain Why.**

Station #4: Creating a key

There is no key on the giant map. It is your job to create a key for the map that will allow other users to get a better sense of the features and locations of the map.

Create a key that includes the following features: River, State capital, mountain, national park service, national forest, indian reservations, national trail, grassland, scale bar, state boundary, country boundary, elevation marker, pass, swamp, lake/reservoir, mountain ranges, **and any others you think are necessary.**

You may use symbols or descriptions or colors when we get back to the classroom.
