



## *Google Earth*



*A whole new way of seeing things!*

### **Okay, First things First!**

#### The Goal:

The goal of this activity is to examine our place in the world...Geographically! And to examine how know the answer to that question can help mushers plan out their races to take the best possible care of their dogs!

### **Now, Second things Second!**

#### Resources:

If you don't already have Google Earth downloaded onto your computer you will need to go do so!

Here's the Link:

[http://earth.google.com/#utm\\_campaign=en&utm\\_medium=ha&utm\\_source=en-ha-na-us-bk-eargen&utm\\_term=google%20world](http://earth.google.com/#utm_campaign=en&utm_medium=ha&utm_source=en-ha-na-us-bk-eargen&utm_term=google%20world)

### **Learning a little about where your at!**

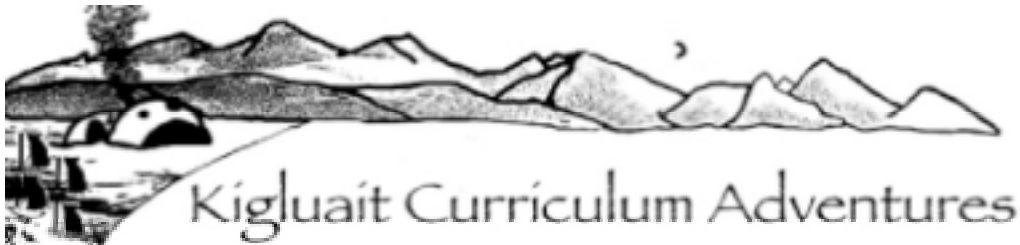
Now, there is so much you can do with Google Earth there is no way I could cover it all in one little lesson. So instead I am going to focus in on the feature that I use most often use when planning out training runs and race plans with my sled dogs... The measuring tool!

Once you have downloaded and opened the program this tool is easy to find! It's the little ruler shaped icon up in the tool bar.



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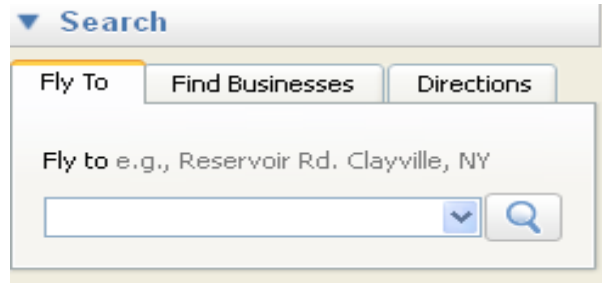
So first step:

1) In the search box look up your school.

Find it?

Great!

2) Now find your house.



Got that too? Cool. What your going to do now is locate the roads you take to get to school each day. See them? If your having trouble, on the right hand side of the map you will find a zoom tool and scrolling tool so you can really pinpoint you location.

I would suggest zooming out until you can see both your home and your school. Now click on the ruler.

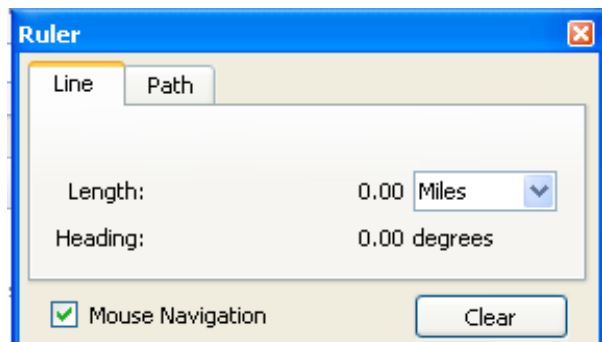
Okay. Use the “line” feature to measure the straight line distance from hour house to school.

How far is it? \_\_\_\_\_

What's the furthest “straight-line” distance anyone in your class lives from school?

\_\_\_\_\_

Now checkout the “path” feature.



Use the path feature to measure the actual distance you have to go to get to school. Trace the exact roads you travel on.

Now how far is that? \_\_\_\_\_

Does that change who has to go the farthest to get to class? Yes/No

Now for a little math!

My favorite!

The equation to calculate speed is: Rate (or speed) = Distance / Time.



So how long does it take you to get to school? \_\_\_\_\_

Perfect!

Now you have all the information you need to work the rate equation!

Distance (from your “path” measurement) divided by the time!

There is a trick though! We are used to “rate” in “miles per hour” so be careful of the units you use in the “time portion of the equation!

### **Applied Practice!**

Alright!

Now you have all the skills you need to do a little Google Earth race planning!

Here is what you do...

First, go to this web site:

<http://www.gearthblog.com/blog/archives/2006/03/post.html> and open up the “iditarod file” link. That should launch your Google Earth doc with a track that show the Iditarod trail on it.



Right, so mushers make a “race plan” for every race they enter. It is all based on how long your dogs can travel between resting, how fast they can travel, and how much they need to rest before they can go again!

With the little twist thrown in that you can't carry all your needed supplies with you at one time so you have to stop at checkpoint to get re-supplied!

We are going to assume that you are a musher running an average, well-trained, dog team. That means you can plan on going 10mph for the first 100 miles, then 9mph for the next 50 miles, before settling down to an average speed of 8mph for the next couple hundred miles until the dogs eventually wind down to 7mph for the rest of the race.

And through all that you need to rest your dogs an equal amount of time that you run them. In other words, if you run 6 hours (regardless of how far you go) you'll need to rest 6 hours!

Okay, so your job is to calculate how many runs it will take you to reach Tokatna, where many mushers take their 24hr mandatory rest. Also figure out how many hours of rest you will need to take,



and the total time it will take you to get there! (then you can go to this site:  
<http://www.iditarod.com/archives/index.html> to figure out what position you would have arrived in during the 2009 race! Good luck!)

Number of runs to Tokatna? \_\_\_\_\_

Hours of rest? \_\_\_\_\_

Total time to arrive? \_\_\_\_\_

Position in 2009 race? \_\_\_\_\_

Great job! Now your ready for the real thing! So come on up to Alaska and give me hand as I plan my own Iditarod run in 2012!