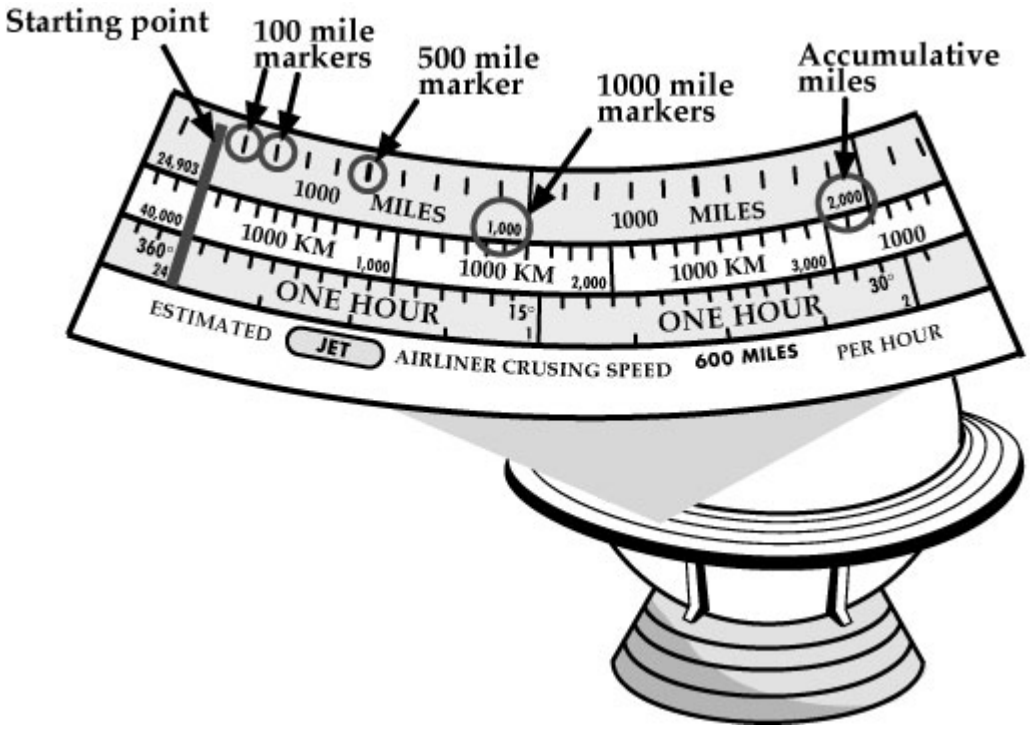
Distance - Lesson 2 - Grade 4-5

Distance on a Globe

How far is it from Chicago, Illinois, to Moscow, Russia? The answer to this depends upon how far you travel to get there. Most long trips are now by airplane. While you might have to vary your route, most air travel moves in straight lines.

In this lesson we are interested in line straight-line distances. We will study the shortest distances between places and measure that distance in miles. Your globe and globe mounting can help us measure distance.

Below is a picture of a part of the scale that appears on the Horizon Ring Mounting. Look at your Horizon Ring globe mounting. The inner ring is yellow and shows miles. The red line is the starting point for this mileage scale. It is divided into 1,000 mile sections. Each section is further divided by 100-mile marks. There is a darker mark at 500 miles. The total amount of miles is shown in the lower right corner of each 1,000-mile section.

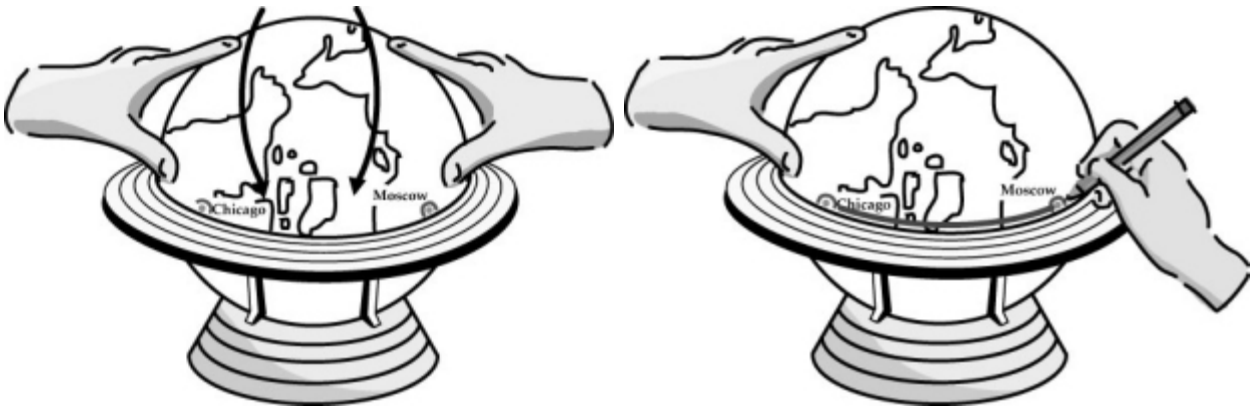


This is called a graphic scale. You will use this graphic scale as you measure the straight-line distance between two locations on the globe. The example used to get started is to find the great circle route between Chicago and Moscow.

Circle Chicago, Illinois, and Moscow, Russia. Place one of your thumbs on Chicago

and the other on Moscow. With your thumbs in this position, rotate the globe until both thumbs touch the Horizon Ring. Take your thumbs away. Be sure the two cities line up with the ring. This is called the *great circle route.*

Lesson 2 - Distance (continued)



Measuring the Distance

Turn the globe so Chicago is exactly over the red line on the Horizon Ring. Rotate the globe until the line is exactly along the Horizon Ring. Read the miles from the red line, around to your right until you reach the point where Moscow is located. Your answer should be about 5,000 miles. This is the approximate distance if you travel a straight line. Any figure between 4,800 and 5,200 is acceptable.

Using this method, find the distance between the following pairs of cities:

1. San Francisco, California to New York, New York _____

2. New York, New York to Honolulu, Hawaii _____

3. Denver, Colorado to London, United Kingdom _____

4. Seattle, Washington to Tokyo, Japan _____

5. Chicago, Illinois to New Delhi, India _____