Going the Extra Mile: Understanding Maps & Scale

**Map of Nevada**

What is a map?

A map shows the view of a place from up above. It is a representation of an area and shows us the bird-eye view. Maps allow us to hold a huge place, like the state of Nevada, in your hand (this piece of paper). This makes it easier to see big places on a smaller scale.

To learn more about maps – follow the steps below.

1. Take a look at the map and see if you can find where you live. Once you do, draw your face near your town.

2. Find a place on the map where Josephine and George Scott visited and add the year they were there (1914).

3. Find and name three places on the map that you have visited or would like to visit someday.

4. A map key or legend is a small description of what the map shows. Does this map have a key / legend? Find and circle the key. Then describe what information this key gives you about our state.

5. What are 2 observations you can make about the landscape of our state by reading this key and map?

6. A scale compares the distances on the paper (map) with the actual distance in real life. Find the scale on this map and draw a triangle around it. Use a ruler (or your thumb – which is about 1 inch) to show the distance on the map between the Black Rock Desert and the Humboldt River location. What do you think the distance is in real life?
7. Using a ruler or your thumb, how many inches is the distance from Red Rock to Death Valley?
   
   a. How many miles would a bird fly in real life to get from Red Rock to Death Valley?

8. Guess how many inches (or thumbs) it would take to get from Elko to Winnemucca? How many miles would a bird have to fly from Winnemucca to Elko?

9. Do you know what a compass is? It shows direction such as north, east, south, and west. Find the compass on this map and put a box around it. Now put one finger on Carson City and another finger on Henderson. Which direction (using the compass) is Henderson compared to Carson City?

At-Home Activity

1. Find a piece of paper and draw your room as if you were a on your roof, looking down into your room. (If you have legos or toys, you can create a 3-D model instead). In your room, add 4 items on your map that you see in your room (examples: bed, desk, dirty sox, door, computer, dresser, etc.) in their general location. Here is an example:

2. Now – measure the distance between each item in real life (in your room). You can use a ruler, tape measure, or your hand (which is about 5 inches long). Write the distance between each item and write the actual distances below.

3. Now – Measure the distance on a map and write down the map distance on your room drawing).

4. Create a comparison of one distance one the map to one distance in real life. For example:

   In real life, my window is 36 inches away from the bed. On the paper map, the distance of the picture is 3 inches. My scale would be 3 inches (map) = 36 inches (real life). If I reduce this comparison, I get 1 inch on the map = 12 inches in real life.

5. Create a scale for your map here. Try it out to see if your drawing scale shows the real-life room distances.

With special thanks to Desert Research Institute for the extra help in understanding maps & scale.

https://www.dri.edu/