

Student Worksheet Local to Global

NAME _____

Data comes from a variety of sources – individuals can collect data at a local level or one point in time and then combine those observations or data points to show information and how it changes over time or over a larger spatial area. We can also collect data with satellites which provide large areas of remotely sensed observations and can even provide global pictures of data/science phenomena.

We are going to answer a series of questions and then combine the data to see patterns on a larger scale.

First, answer the questions below.





Questions (*These will change based on the content topic chosen by the teacher; symbology shown are just suggestions and should be decided by the class together*)

1. When did you most recently experience an earthquake ?

- Recently: In the last 1-2 years - ●●●●●
- Somewhat Recently: 3 or 4 years ago - ●●●●●
- Long Ago: 5 years ago or longer - ●●

- Never experienced an earthquake - ●

2. Which do you think causes the most disruption for people when an earthquake hits where they live?

- Shaking/Building collapse 
 - Roads that you can't drive down 
 - Power outages 
 - Flooding/tsunami 
- (symbols: shaking/building collapse roads flooding power outages)

3. In the future, do you think there will be more, less, or about the same number of earthquakes, compared to the historical average?

- A lot less - ↓↓
- A little less - ↓
- About the same - --
- A little more - ↑
- A lot more - ↑↑

Colors + Shades: Dark Green, Light Green, Beige or Yellow, Light Red, Dark Red

4. Would you take historical earthquake activity into account when deciding whether or not to travel somewhere for vacation?

- Yes - GREEN
- No - RED

Symbols: Yes - Thumbs up; No - Thumbs down

5. [Go here](#) and look up the year that you moved into your current residence (if you last moved earlier than 2000, use the earliest year with data; if you moved this year, use the most recent year reported). How many 8.0+ magnitude earthquakes occurred that year worldwide?

_____ (write the number)

Table pulled from USGS

Magn itude	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	
8.0+	1	1	0	1	2	1	2	4	0	1	1	1	2	2	1	1	0	1	1	1	0	3	



Now we are going to look at all our data together as a class. Take 1 minute of silent reflection/observation of our 'fence posts' then answer the questions below.

1. What surprises you about the data?
2. What patterns do you notice?

3. What do the patterns tell us about our collected data?

4. Do you think the patterns would be different in other locations/with other ages/more people?



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