NAME (first and last): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD: \_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Data Analysis Assessment: Part 2. Drought Patterns in The West.**

**Standard** we are working on: I can *analyze and interpret data to describe patterns of drought categories over my lifetime in The West region of the United States.*

*Essential Question: What factors are causing changes to salmon populations over time?*

TABLE: Use the US Drought Monitor data to complete this table. Find this on GC.

Examine the graph to complete the table below:

| **Phenomenon:**  What are you looking at? | **Indicators:**  How are scientists measuring this phenomenon? Name the units. | **Source:**  Where am I getting the data to explain the patterns of this phenomenon? List the website. | **Accuracy:** How can I be sure this data is accurate and credible? Check what applies to the data/source materials you are using: |
| --- | --- | --- | --- |
|  |  | * The data/source material comes from a scientific agency of the United States government. The website is **.gov** * The data/source material comes from an educational resource. The website is **.edu** * The data/source material comes from an organization with a scientific reputation with editors that fact check all publications **.org** |
|  |
| Mastery: How is the data collected? (what indicators show drought is occurring?) | | | |
|
|

MAPS ANALYSIS

You will use the drought monitor Comparison Slider on GC to describe the patterns of drought over your lifetime. You will look at 2 different snapshots of time as follows:

**Map A: Drought Patterns in The West on the Day I was Born** (or closest date available on the data set).

**Map B: Drought Patterns on My Last Birthday** (or closest date available on the data set).

You will color 2 maps showing the drought data as yellow, orange, red and red-brown color categories of drought. The maps are on pages 3 and 4). Each map will show the pattern of drought in The West for each of the two dates: the day you were born and the day of your LAST birthday. Add a title above each map. Include the date the map data represents. Include a key with each color showing each drought category. Use the checklist to make sure you have met all the proficiency requirements.

The West includes the following states. Make sure you can identify each State correctly:

Arizona - AZ

California - CA

Colorado - CO

Idaho - ID

Montana - MT

New Mexico - NM

Nevada - NV

Oregon - OR

Utah - UT

Washington - WA

Wyoming - WY

MAP A:

KEY

MAP B:

KEY

**ANALYSIS QUESTIONS:**

1. How have the patterns of drought changed **from the day you were born to your last birthday**? Include the day, month and year in your response. Include patterns of drought classifications (D0 as moderate dry to D4 as exceptional drought) in specific states and regions within each state. An example of a region is Eastern Oregon. Another example is Central California. What ideas do you have to explain the patterns you see?

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1. Further explore the Comparison Slider. Describe how the patterns of drought are different at different times of year? Compare the patterns of drought between your last birthday this year and **your last half** birthday? Are the patterns the same? If not, what would explain these differences?

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MASTERY ANALYSIS: Further explore the Comparison Slider. Analyze different dates. What do you notice about the patterns of drought over time? Are these patterns consistent with the trends in the drought patterns you described above? Are any years anomalous or unexpected? (are not what the trend shows). How do the patterns of drought in The West compare to the Nation as a whole over the same time periods? Are there other States that are experiencing similar patterns in drought over time as The West?

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**Data Analysis Assessment Checklist:**

| Standard we are working on: I can *analyze and interpret data to describe patterns of drought categories over my lifetime in The West region of the United States.* | | | | |
| --- | --- | --- | --- | --- |
| M  Mastery that exceeds grade level standards | P  Proficiency that meets grade level standards | N  Nearing proficiency toward grade level standards | Y  Not yet demonstrating proficiency | L  No Evidence |
| My analysis includes everything from Proficient, AND:   * Expanded the analysis of data to compare patterns at additional points in time and use these patterns to infer trends in drought over time. * Compare drought patterns in The West to the National patterns over the same time period and share analysis in writing. * Maps are exceptionally neat and clear to read. | My analysis is complete and correct, including:  *Table*   * Correctly identifies the **phenomenon** and **indicator**. * Correctly identifies the **source** and how the data was collected. * Correctly assesses the credibility and **accuracy** of the data.   *Maps*   * Two maps with accurate representation of the drought patterns for each time period. * The date of each map is clearly shown. * A title for each map is clearly shown. * There is a color key to show each drought category. * My key labels each drought category with accurate color.   *Written Analysis*   * My responses to the analysis questions are complete using full sentences to describe the patterns of change. | My analysis is almost there, but lacks one or more of the requirements for proficiency. | I shared some of my science thinking in this analysis assessment. | I have not turned in and/or attempted the assessment. |