

Name:

Date:

Climate Investigation

Guiding Question:

- Will the weather and climate patterns I observed in the local data continue into the future?
- How do the local climate patterns I investigated compare to other regions of the world?

Conduct the Investigation:

1. In your science notebook, record the latitude and longitude(s) of the location(s) you are interested in investigating (*using the values you recorded in the Weather to Climate Investigation, or Carbon Mapper, or Google Maps*), and describe how you think this location(s) will be impacted by climate change.
2. Use the guiding questions above, identify a new question, concerning the location's anticipated climate change. Record your **research question** in your notebook. What data/information do you need in order to answer your research question?
3. Using the following tools, investigate your research question:
 - a. *Climate Maps*
 - b. *Climate Animations*
 - i. Temperature and Precipitation means and anomalies
 - c. *Single Site Climate Data tools*
 - i. Climate Timeline- Annual
 1. Follow the instructions to enter the latitude/longitude for one location, select 'MeanAnnualTemperature' and/or 'MeanAnnualSnowAmount' and use the resulting graph and *Table of 30 Year Averages*.
 - ii. Climate Change Comparisons (**Note: will not work on iPads):
 1. Enter two latitude/longitude pairs to compare their predicted change in climate. Follow the 'Google Motion Chart' link, select both lat/lons in the panel on the right, and click the play icon.

****NOTE:** *The climate variables reported by these tools may be different than the Daymet local dataset (e.g., **mean temperature** instead of maximum temperature, and **snow depth** instead of snow water equivalent). However the overall trend will be the same.*

Record your results:

1. Using text, data tables, and/or graphs, record your observations and results in your science notebook.

Conclusions and Discussion:

1. Record the notable outcomes of your investigation.
2. Respond to the questions:
 - a. Do the tools provided help to answer the question you posed?
 - b. What other information would be helpful for this investigation?
 - c. What further research questions do you have? Record at least one.

