

## Semester 2 Performance Task Student Directions

In this project you will work with a group of 2 to evaluate an aspect of climate change for the people of California. There are 3 parts to this assignment 1) group slides; 2) group presentation (final) and 3) individual packet. There are several ways that climate change will have an effect:

Key Message 1: Reduced Snowpack and Streamflows

## Guiding Questions

- How are farmers, water utilities and state agencies in the region planning to address drought and long-term reduction in water resources?
- Does your community have a drought or water conservation plan? If not, what are the elements of a good plan?
- What sorts of job opportunities could emerge related to water conservation and drought planning?

Key Message 2: Threats to Agriculture

## Guiding Questions

- What are the key agricultural products in your region? Pick one or two to focus your analysis.
- How are they currently being impacted by changing climate and what is being done to prepare for future changes?
- What opportunities are there to change practices to become more resilient and sustainable?

Key Message 3: Increased Wildfire

## Guiding Questions

- Wildfire doesn't only occur in forested regions. What are the wildfire risks in your region?
- What is the history of wildfires in your area?
- What groups are organized to mitigate and fight fires, and what jobs are associated with them?

Key Message 4: Sea Level Rise and Coastal Damage

## Guiding Questions:

- Even if you don't live along the California coast, everyone in the Southwest is potentially impacted by sea level rise since many goods used in the region enter through California ports. What products in your community come through these ports and how might increased sea level rise lead to new job opportunities?
- How might sea level rise impact the Central Valley of California, which grows many crops vital to the nation? (See USGS site for more: <http://ca.water.usgs.gov/projects/central-valley/about-central-valley.html> )

Key Message 5: Heat Threats to Health

## Guiding Questions

- What steps are being taken on a local level to prepare for heat events and possible disruptions to energy and water supplies?
- What are ways that students and citizens can get involved to help communities become more heat-ready?

Once you have selected your topic research the resources developed by National Climate Assessment (NCA) Resources. The National Climate Assessment includes regional chapters that provide region-specific data and points to related, high-quality online resources. California is in the Southwest Region: this [website](#) contains many links that are available for you to investigate your question farther. Organize the information in your analysis into a presentation format.

Climate Change and California Performance Task Project Planning Guide:

## Part 1: Research

- A) Selected Key Message in the National Climate Assessment Southwest Regional:

B) Research topics of the Key Message Effect and the websites you used for your research

C) Analysis to answer guiding questions (individually on a separate piece of paper)

D) Websites used for data sources you selected to graph to show evidence to support your claim

#### Part 2: Develop Presentation

A) Develop a claim to explain what climate changes may do in California

B) Presentation to provide evidence to support your claim; Create a presentation to explain how the climate is predicted to change. The presentation should be at least 10 google slides that include graphs and data sources to show your claim is realistic, based upon data, explanatory, and predictive. Share the presentation with your teacher.

#### Part 3: Present and Evaluate

- A) Watch the presentation of other groups and use the following questions to guide your evaluation of group
- Observed climate change effect
  - Are there 3 important features of the climate change effects in California
  - Is the graphed data effective in explaining how climate changes will affect the selected California resource
  - Does the presentation represent a realistic prediction of how climate changes will affect California
  - What is a question that you still have?

#### Part 4: Reflect

- A) Each student writes a reflection on the overall project that will be turned in with your individual notes:
- Why is climate change important to the study of Earth Science
  - Why do some people think that humans will not change their habits and reduce greenhouse gas emissions
  - What would we have to do to reduce the effects of climate change in California

Rubric 1-10	Group_____	Group_____	Group_____	Group_____	Group_____
Observed climate change effect					
Are there 3 important features of the climate change effects in California					
Is the graphed data effective in explaining how climate changes will affect the selected California resource					
Does the presentation represent a realistic prediction of how climate changes will affect California					
What is a question that you still have?					

	Group_____	Group_____	Group_____	Group_____	Group_____
Observed climate change effect					
Are there 3 important features of the climate change effects in California					
Is the graphed data effective in explaining how climate changes will affect the selected California resource					
Does the presentation represent a realistic prediction of how climate changes will affect California					
What is a question that you still have?					