

LP 1

Introduction to Climate Change

# of Days	1		
Prior Knowledge	Students will likely know about different weather phenomena, but may confuse weather and climate.	California English-Language Arts Content Standards	Reading 2.3, 2.4, 2.5, 2.8 (Article Analysis) Writing 2.3.c (Concept Map) Listening & Speaking 1.2 (Article Analysis)
Lesson Objective	Students will be able to identify the relevance of studying climate change and differentiate between elements of weather and climate.	Language Goals/Demands	Students will be able use different terms to relate components of the climate system and weather to each other. Demands: Definitions - Students must be able to recognize keywords that identify definitions; Concept Map - Students must know the difference between and be able to use nouns and verbs.
Lesson Assessment	Quiz 1: Questions in quiz on LP1 & LP2	Changes for Next Time	
California State Science Standard	Earth Science 6.a and 6.b		
Materials Needed	Student handouts, powerpoint slides, computer, projector, internet connection	What Worked Well	
Time	Learning Task or Activity	Method & Notes	
Day 1			
17 min	<p>Lesson Hook</p> <ul style="list-style-type: none"> - Tell students that they are about to start a three week unit on climate change. - Climate change is a big issue in the news, but why is it such a big deal? - You will read a one-page article from Reuters about the impact of climate change on students their age. (The article is about sea level rise in a foreign country.) - Students will read in small groups and then discuss the article using the provided questions. - Make sure you have students think about whether this will impact them or not. - At the end of the activity, have students report to the entire class their headline for the sea level rise issue in the Bay Area 	<p>GROUP WORK</p> <p>See 1.1.1 for Article</p> <p>See Slide 1.1.2 for Article Vocabulary</p> <p>See 1.1.3 for Discussion Questions</p>	

8 min	<p>Sea Level Impact in the Bay Area</p> <ul style="list-style-type: none"> - Here is a map of the sea level rise that could take place here in the Bay Area. (Show Google Map Image of Sea Level Rise) - Show students the current sea level and then have them make predictions about how much rise it will take to flood certain areas close to their school 	<p>WEB DEMO</p> <p>Google Maps Sea Level Rise http://flood.firetree.net/?ll=43.3251,-101.6015&z=13&m=7 (Find the North America Map and Zoom in on your coastal area. Start with 0 meters sea level rise so that students have a baseline and then increase in increments of your choice).</p>
10 min	<p>Defining Weather and the Climate System</p> <ul style="list-style-type: none"> - Tell students that over the next three weeks you will learn more about how climate is changing and the impacts of this change. - But first, we have to make sure we understand exactly what weather and climate are - Go through Slides 	<p>LECTURE WITH SLIDES</p> <p>See Slides 1.1.4</p> <p>You may find it helpful to post 1.1.5 - "Keywords to identify definitions" for the remainder of the unit</p>
5 min	<p>Weather/Climate Confusion</p> <ul style="list-style-type: none"> - Have students watch the Stephen Colbert Video that addresses the common misconception of climate and weather. - While watching the video, have students think about the proper use of weather, climate, and climate systems 	<p>WATCH VIDEO</p> <p>http://www.huffingtonpost.com/2010/02/11/colbert-rips-fox-news-for_n_458075.html</p>
5 min	<p>Video Discussion</p> <ul style="list-style-type: none"> - Discuss the ways in which people use the terms weather and climate and climate system improperly - Discuss the main evidence for support of climate change despite the heavy snowfall. 	<p>DISCUSSION</p>
5 min	<p>Concept Map Introduction</p> <ul style="list-style-type: none"> - Handout Concept Map Instructions - Explain that students will be making a concept map throughout the unit. - Make sure students write in pencil - Finish by explaining students' homework for the night 	<p>LECTURE</p> <p>See 1.1.6 Concept Map Instructions (Student Handout)</p>
HW	<p>Homework: Start your concept map with the following terms: Climate System and Weather. Also, add two or three factors to your map that you think will affect the climate system.</p>	