

**Unit Title:** Climate Change

**Course:** Environmental Science

**Time:** 1 week

**Unit goal/objective:** To understand global and local implications of climate change, their causes, and what can be done to prevent/stay global climate change.

**Lesson:** Provide students with an overview of the causes and effects of global climate change through answering the following questions:

- 1) What are the major causes of climate change?
- 2) What are the global implications of climate change as it is currently understood?
- 3) How does climate change specifically rear its ugly head? E.g habitat loss and degradation, pollution, biotic invasion, affects on agriculture and water quality... (this can be addressed both globally and locally)
- 4) What are some appropriate responses to climate change? – mitigation and adaptation... again both globally and locally.

**Assignment:** Students pick one aspect of climate change (habitat loss, pollution...can be something discussed in class or not but must be cleared with teacher) and must answer the following questions in a five minute presentation. Focus should be local, not global.

Four questions:

- 1) Ugly head – what does you specific aspect of climate change look like?
- 2) What is the cause? Can be local and global.
- 3) What are the local impacts?
- 4) What is an appropriate local response to this climate change issue? Can be an aspect of adaptation, mitigation or both, but should be local.

**Example:**

Ugly Head: loss of snowpack in Sierras

Cause: decrease of precipitation, jet stream moving further north

Impact: increase flooding in spring, less water available in mid to late summer.

Response: adaptation – drought tolerant crops, efficient irrigation and water use

Mitigation – water restriction policy, requirements for increase in water efficiency

- GHG emission restrictions

**Grading.**

Provide a grading rubric that at the minimum addressed the following:

Time requirements must be met.

All four questions must be clearly answered.

Must provide information we did not cover in class (some overlap is acceptable).

Must be able to provide sources for information presented.

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