

# Climate Science Basics

Environmental Educators Association of Oregon

28 September 2016

Presenters: Kathy Conway, Alan Journet

Participants: Groups of 4-5 (even number of groups if possible)

## Materials:

- **Activity I: Global Warming Story:** Set of images, large sticky notes for story, markers to write story.
- **Activity II: Competing Hypotheses:** (For each group) One image or set of images for one of the competing hypotheses.

**Time:** 9:15-10:30

Time (75 total)	Running Time (end) 9:15 start	What
5	9:20	<ul style="list-style-type: none"> <li>• Introduce presenters</li> <li>• Explain SOCAN</li> <li>• Objective: To add to your understanding of the basic science of climate change.</li> <li>• Background – research about teachers not knowing basics</li> </ul>
34/	Activity I:	<b>Global Warming Story—An Exercise on the Basic Science</b>
5	9:25	<b>Directions</b>
8	9:33	<b>Analyzing and Interpreting the Images:</b> Discuss in group what the figures tell us, identify and ask facilitators questions you have.
8	9:41	<b>Developing your Story</b> Assemble the images into a sequence that tells a story about how global warming works. You can put them in any order. Use all of the images. Write a brief caption under each image in your story.
9	9:50	<b>Group Sharing</b> (2 groups) Each group explains their story to the other group. Record questions that arise.
5	9:55	<b>Summary</b> - Clarification
30	Activity II:	<b>Competing Hypotheses</b>
5	10:00	<b>Introduction:</b> “What are competing hypotheses?” (TV example: see PPT)
5	10:05	<b>Directions:</b> Test your Hypothesis (see PPT) Show global temperature pattern. (use copy for each group from Activity I) 5 competing hypotheses <ol style="list-style-type: none"> <li>1. Solar Radiation</li> <li>2. Volcanoes</li> <li>3. El Niño Southern Oscillation (ENSO)</li> <li>4. Milankovitch Cycle</li> </ol>

		5. Greenhouse gases
10	10:15	<b>Figure Analysis</b> Each group gets set of images to use to evaluate their assigned hypothesis. Determine what the images are telling them, and develop a report to the participants. Select one person to present the report.
10	10:25	<b>Discussion</b> Each group identifies their hypothesis and discusses how the data presented test their hypothesis. Figures are projected during this discussion so everyone can see. Reach conclusion of hypothesis that is supported.
5	10:30	Summary
		<ul style="list-style-type: none"> <li>• Help line: <a href="mailto:socanhotline@gmail.com">socanhotline@gmail.com</a></li> <li>• Website: <a href="http://socan.info">socan.info</a></li> <li>• Facebook: <a href="https://www.facebook.com/SOClimate/">https://www.facebook.com/SOClimate/</a></li> <li>• Suggestions for teaching Global Warming</li> <li>• Thanks for attending</li> <li>• Sign up if want notices from SOCAN</li> </ul>