

Grades 9 – 12 Scope and Sequence for Climate Change Compendium

Topic	Lesson Included	AAAS Standards	NSES Standards	NCGE Standards	Background
The Greenhouse Effect	Warming up to Global Warming	5: d 7: c 12: d	7: e		Confronting Climate Change in the Gulf Coast Region
	What Factors Impact a Greenhouse?	1: b 4: b 9: b 11: c 12: d	1: b 5: a	4, 8	Attached Background
Carbon and Greenhouse Gases	Greenhouse Gases	2: b 9: b 11: c	7: e 1: c 3: c		Middle School Activity Greenhouse Gases
	Climate and CO₂: Analyzing Their Relationship	7: c 11: a	4: d 7: d, e, f	7	
	Carbon Cycle in the Lab	4: c 5: d, e	3: c 5: b 7: e 1: c	7	Carbon Cycle diagrams located in the Image Bank
	CO₂ and You	5: d 8: c 9: b 12: b	6: b 5: b 7: e	14	The Greenhouse Effect; NASA Facts
Albedo	Earth's Energy Cycle: Albedo	1: b 4: b 9: b 11: c	3: f 5: a	1, 7	What is Albedo? (included)
	Albedo	1: b 9: b 12: c (with extension)	2: a 3: f 5: a	1, 7	Attached background
	Reflecting on Reflectivity	1: b 3: b 11: b	2: a 3: f 5: a	1, 7	High School backgrounders #1, 2, and 7

	Daisy World	1: b 5: d 9: b 11: a, c	4: e 5: a		Feedback loops supplemental information
	Atmospheric Perturbations	1: b 9: b 11: a, c	2: a 4: e		
Polar Regions	The Polar Regions	10: e		3, 4, 8	Theoretical section attached
	What Effect Does Climate Change Have on Wildlife?	3: c 5: a, d	4: d 7: d, e	11	Backgrounder #1, 5, 8, 9
	Climate Change: Boon or Bust for Northern Waters	3: c 5: d 7: a, b, d	4: d 6: a 7: d, e	11	Backgrounder #1, 2, 6-11
	Experimenting with Ice Melt	1: b	2: a 7: d, e		Attached websites
Tracking Climate	Signs of Change: Studying Tree Rings	1: b 9: b	2: b 4: e 7: e		Backgrounder #1, 2, 5
	Ice Cores	1: b 4: c	2: a, b	7	Learning from Polar Ice Research Attached website
Culminating Activity	Ahimsa Media's Reducing CO₂ Emissions				none