

Environmental Sciences Resource List

TROP ICSU
Feb, 2023

Lesson Plans

#	Lesson Plan Title	Disciplines	Key Topics	Link
1	Lesson Plan: Climate Refugees and Environmental Migration	Social Sciences, Humanities, Environmental Sciences	Climate Change Overview, Climate Refugee, Environmental Justice	https://tropicsu.org/climate-refugees-and-environmental-migration/
2	Lesson Plan: Aerosols and Climate	Chemistry, Environmental Sciences	Environmental Chemistry, Greenhouse Gases, Greenhouse Effect, Atmosphere, Pollution, Aerosols	https://tropicsu.org/aerosols-and-climate/
3	Lesson Plan: Hydrocarbons and climate change	Chemistry, Environmental Sciences	Environmental Chemistry, Carbon Chemistry, Greenhouse Gases, Fossil Fuels, Hydrocarbon, Carbon Emissions, Pollution, Greenhouse Effect, Atmosphere	https://tropicsu.org/hydrocarbons-and-climate-change/
4	Lesson Plan: Carbon Cycle Regulation by Carbon Sequestration	Environmental Sciences, Chemistry, Earth Sciences	Carbon Chemistry, Biogeochemical Cycles, Environmental Chemistry, Climate Change Overview, Geologic Carbon Cycle, Adaptation and Mitigation, Carbon Cycle, Carbon Sequestration	https://tropicsu.org/carbon-cycle-regulation-by-carbon-sequestration/
5	Lesson Plan: Teach the Earth's Climate System Through Simulations (Build Your Own Earth)	Earth Sciences, Environmental Sciences, Geography	Climate Change Overview, Earth's Climate, Planetary Climate, Earth's Climate System, Earth's Layers, Atmosphere, Biosphere, Hydrosphere, Lithosphere, Cryosphere	https://tropicsu.org/teach-the-earths-climate-system-through-simulations-build-your-own-earth/
6	Lesson Plan: Climate Change and Risks of New Pandemics	Biological Sciences, Environmental Sciences	Human Health, Pandemic, Epidemiology, Covid-19 Pandemic, Infectious Diseases	https://tropicsu.org/climate-change-and-risks-of-new-pandemics/

#	Lesson Plan Title	Disciplines	Key Topics	Link
7	Lesson Plan: Teach the Earth's Climate System Through Simulations (Earth-Like)	Earth Sciences, Environmental Sciences, Geography	Climate Change Overview, Planetary Climate, Earth's Climate System, Earth's Climate, Earth's Layers, Atmosphere, Biosphere, Hydrosphere, Lithosphere, Cryosphere	https://tropicsu.org/teach-the-earths-climate-system-through-simulations-earth-like/
8	Lesson Plan: Impact of Climate Change on Circadian Rhythms and Sleep	Biological Sciences, Environmental Sciences	Human Health	https://tropicsu.org/impact-of-climate-change-on-circadian-rhythms-and-sleep/
9	Lesson Plan: Teaching Human Health and Climate Change	Biological Sciences, Environmental Sciences	Human Health, Infectious Disease, Epidemiology, Microbiology	https://tropicsu.org/teaching-human-health-and-climate-change/
10	Lesson Plan: The Locust Plague, Food Insecurity, and Climate Change	Environmental Sciences, Social Sciences	Locust Plague, Food Security, Agriculture, Climate Change and Food Security	https://tropicsu.org/the-locust-plague-food-insecurity-and-climate-change/
11	Lesson Plan: Desertification and Sustainable Land Management	Geography, Environmental Sciences	Lithosphere, Disasters and Hazards, Ecosystems	https://tropicsu.org/desertification-and-sustainable-land-management/
12	Lesson Plan: Hip-Hop in the Classroom: Teaching Climate Change through Rap	Humanities, Social Sciences, Earth Sciences, Environmental Sciences	Hip-Hop, Climate Change Overview, Cultural Studies, Sociology, Earth's Climate	https://tropicsu.org/hip-hop-in-the-classroom-teaching-climate-change-through-rap/
13	Lesson Plan: Permafrost and Climate Change	Geography, Environmental Sciences, Earth Sciences	Cryosphere, Glaciers, Greenhouse Effect, Disasters and Hazards, Carbon Emissions, Greenhouse Gases	https://tropicsu.org/permafrost-and-climate-change/

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14	Lesson Plan: Phenotypic Plasticity: Ecosystems and Food Webs	Biological Sciences, Environmental Sciences	Ecology, Phenology, Biodiversity, Biosphere, Conservation, Ecosystem	https://tropicsu.org/ecosystems-and-food-webs/
15	Lesson Plan: Ecological Niches and Biogeography: Mountain Gorillas, Bamboo and Climate	Environmental Sciences, Biological Sciences	Ecology, Ecosystem, Species and Speciation	https://tropicsu.org/ecological-niches-and-biogeography-mountain-gorillas-bamboo-and-climate/
16	Lesson Plan: Biodiversity and Species Extinction due to Climate Change	Biological Sciences, Environmental Sciences	Biodiversity, Species and Speciation, Species Extinction	https://tropicsu.org/biodiversity-and-species-extinction-due-to-climate-change/
17	Lesson Plan: Teaching “Climate Change and Food Security” and “Climate Change and Agriculture”	Biological Sciences, Environmental Sciences	Climate Change Overview, Food Security, Agriculture	https://tropicsu.org/teaching-climate-change-and-food-security-and-climate-change-and-agriculture/
18	Lesson Plan: Black Carbon and its Impact on Earth’s Climate	Chemistry, Environmental Sciences	Carbon Chemistry, Molecular Structure of Compounds, Environmental Chemistry, Pollution, Human Health, Carbon Emissions, Fossil Fuels, Atmosphere	https://tropicsu.org/black-carbon-and-its-impact-on-earths-climate/
19	Lesson Plan: Electrochemistry: Use of Electrolysis to Reduce Global Carbon Emissions	Chemistry, Environmental Sciences	Electrochemistry, Environmental Chemistry, Fossil Fuels, Carbon Emissions, Pollution	https://tropicsu.org/electrochemistry-use-of-electrolysis-to-reduce-global-carbon-emissions/
20	Lesson Plan: Electrolysis: Application in Fuel Cell Technology	Chemistry, Environmental Sciences	Electrochemistry, Environmental Chemistry, Fossil Fuels, Carbon Emissions, Pollution	https://tropicsu.org/electrolysis-application-in-fuel-cell-technology/
21	Climate Impacts on the Silkworm Life Cycle	Biological Sciences, Environmental Sciences	Biodiversity, Ecology, Conservation, Food Security	https://tropicsu.org/silkworm-lifecycle/

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22	Major River Systems: Climate Change and the River Nile	Geography, Earth Sciences, Environmental Sciences	Climate Change Overview, Recent Climate Change, Hydrosphere, Earth's Layers, Food Security, Agriculture, Disasters and Hazards, Climate Change and Food, Water Resources and Climate Change, El Nino Southern Oscillation	https://tropicsu.org/major-river-systems-climate-change-and-the-river-nile/
23	The Greenhouse Effect	Earth Sciences, Geography, Environmental Sciences, Chemistry	Climate Change Overview, Greenhouse Effect, Greenhouse Gases, Fossil Fuels, Atmosphere	https://tropicsu.org/the-greenhouse-effect-lp/
24	Teaching about Hazards and Disasters through Climate-related Examples (Sea-Level Rise and Flooding due to Melting of Polar Ice)	Geography, Earth Sciences, Environmental Sciences	Earth's Layers, Cryosphere, Hydrosphere, Disasters and Hazards, Sea Level Rise	https://tropicsu.org/teaching-about-hazards-and-disasters-through-climate-related-examples-sea-level-rise-and-flooding-due-to-melting-of-polar-ice/
25	Plastic Rain	Environmental Sciences, Chemistry	Environmental Chemistry, Environmental Pollution	https://tropicsu.org/plastic-rain/
26	War in A Warming World	Social Sciences, Environmental Sciences	Drought, War, International Relations, Peace and Conflict Studies, Security Studies, Climate Refugees, Political Science, Agriculture, Food Security, Environmental Migration, Disasters and Hazards	https://tropicsu.org/war-in-a-warming-world/
27	Himalayan Glaciers Climate Change in Bhutan	Geography, Earth Sciences, Environmental Sciences	Glaciers, Earth's Layers, Cryosphere, Lithosphere, Hydrosphere, Disasters and Hazards, Water Resources and Climate Change, Water Security	https://tropicsu.org/himalayan-glaciers-climate-change-in-bhutan/

#	Lesson Plan Title	Disciplines	Key Topics	Link
28	Breathless Oceans: Impact of Climate Change on Dissolved Oxygen	Chemistry, Environmental Sciences	Environmental Chemistry, Hydrosphere	https://tropicsu.org/breathless-oceans-impact-of-climate-change-on-dissolved-oxygen/
29	Civilizations and Climate Vulnerability: The Khmer Empire	Social Sciences, Humanities	Anthropology, History, Heritage Studies, Water Security, Disasters and Hazards	https://tropicsu.org/civilizations-and-climate-vulnerability-the-khmer-empire/
30	Teaching the Carbon Cycle through Climate-related Examples	Chemistry, Earth Sciences, Environmental Sciences, Geography	Environmental Chemistry, Carbon Cycle, Biogeochemical Cycles, Chemical Weathering, The Urey Reaction, Atmosphere, Lithosphere, Biosphere, The Silicate Thermostat, Carbon Emissions, Fossil Fuels, Earth's Climate System	https://tropicsu.org/teaching-the-carbon-cycle-through-climate-related-examples/
31	Carbon Sequestration in Trees	Environmental Sciences, Biological Sciences, Earth Sciences, Chemistry	Carbon Sequestration, Carbon Cycle, Biogeochemical Cycles, Ecology, Botany, Biosphere	https://tropicsu.org/carbon-sequestration-in-trees/

Teaching Tools

#	Teaching Tool Title	Disciplines	Key Topics	Link
1	Video/ Microlecture: Climate Change in the Environmental Sciences Classroom	Environmental Sciences	Climate Change Overview	https://tropicsu.org/climate-change-in-the-environmental-sciences-classroom/
2	Game: The Food Challenge	Environmental Sciences	Climate Change Overview, Agriculture, Food Security	https://tropicsu.org/the-food-challenge/
3	Reading: Climate Change and Natural Disasters	Earth Sciences, Environmental Sciences, Geography	Climate Change Overview, Disasters and Hazards	https://tropicsu.org/climate-change-and-natural-disasters/
4	Reading: Climate Disasters: An Overview	Earth Sciences, Environmental Sciences, Geography	Climate Change Overview, Disasters and Hazards	https://tropicsu.org/climate-disasters-an-overview/
5	Reading: Climate Change: What Can You Do? A Comic	Environmental Sciences	Climate Change Overview	https://tropicsu.org/climate-change-what-can-you-do-a-comic/
6	Teaching Module: Climate and the Biosphere: An Overview	Earth Sciences, Environmental Sciences, Biological Sciences	Climate Change Overview, Biodiversity, Ecosystem	https://tropicsu.org/climate-and-the-biosphere-an-overview/
7	Reading: Biogeochemical Cycles	Biological Sciences, Environmental Sciences	Climate Change Overview, Carbon Cycle, Biogeochemical Cycle	https://tropicsu.org/biogeochemical-cycles/
8	Reading: Climate Change Impacts- A Comic	Environmental Sciences	Climate Change Overview, Ecosystems	https://tropicsu.org/climate-change-impacts-a-comic/

#	Teaching Tool Title	Disciplines	Key Topics	Link
9	Teaching Module: Teacher Guide to Climate Change- Agriculture	Environmental Sciences, Agricultural Sciences	Climate Change Overview, Agriculture, Food Security	https://tropicsu.org/teacher-guide-to-climate-change-agriculture/
10	Teaching Module: Climate Change and the Future of Food	Environmental Sciences, Agricultural Sciences	Climate Change Overview, Agriculture, Food Security	https://tropicsu.org/climate-change-and-the-future-of-food/
11	Reading: Can People Change Climate?	Earth Sciences, Environmental Sciences, Biological Sciences	Climate Change Overview, Biosphere	https://tropicsu.org/can-people-change-climate/
12	Video: The Way We Eat	Environmental Sciences, Agricultural Sciences	Climate Change Overview, Agriculture, Food Security	https://tropicsu.org/the-way-we-eat/
13	Reading: Fossil Fuels and the Climate Crisis- A Comic	Environmental Sciences	Climate Change Overview, Greenhouse Effect, Fossil Fuels, Carbon Emissions	https://tropicsu.org/fossil-fuels-and-the-climate-crisis-a-comic/
14	Reading: What Is Climate Change? A Comic	Environmental Sciences	Climate Change Overview, Greenhouse Effect	https://tropicsu.org/what-is-climate-change-a-comic/
15	Online Course: Climate Science: An Introduction	Earth Sciences, Environmental Sciences	Climate Change Overview, Earth's Climate, Recent Climate Change, Atmosphere, Biosphere, Cryosphere, Lithosphere, Anthroposphere, Earth's Climate System	https://tropicsu.org/climate-science-an-introduction/
16	Audio: Feeding The Planet	Environmental Sciences, Agricultural Sciences	Climate Change Overview, Agriculture, Food Security	https://tropicsu.org/feeding-the-planet/

#	Teaching Tool Title	Disciplines	Key Topics	Link
17	Game: The Carbon Footprint of Chicken Tikka Masala and Other Food Items	Environmental Sciences, Agricultural Sciences	Climate Change Overview, Agriculture, Food Security	https://tropicsu.org/the-carbon-footprint-of-chicken-tikka-masala-and-other-food-items/
18	Game: The Carbon Footprint of Food	Environmental Sciences, Agricultural Sciences	Climate Change Overview, Agriculture, Food Security	https://tropicsu.org/the-carbon-footprint-of-food/
19	Video: Climate Change and the Food We Eat	Environmental Sciences	Climate Change Overview, Agriculture, Food Security	https://tropicsu.org/climate-change-and-the-food-we-eat-2/
20	Reading: What is the Anthroposphere?	Environmental Sciences, Humanities, Earth Sciences, Social Sciences	Climate Change Overview, Anthropology	https://tropicsu.org/what-is-the-anthroposphere/
21	Teaching Module: Climate Change Mathematics by NASA	Earth Sciences, Mathematics and Statistics, Environmental Sciences	Algebra, Trigonometry, Introduction to Statistics, Climate Change Overview, Earth's Climate, Carbon Sequestration, Glacier Retreat	https://tropicsu.org/climate-change-mathematics-by-nasa/
22	Teaching Module: Climate Refugees	Social Sciences; Humanities; Environmental Sciences; Geography	Human Migration, Climate Refugees, Peace and Conflict Studies, Security Studies	https://tropicsu.org/climate-refugees/
23	Teaching Modules: Climate Justice	Humanities, Social Sciences, Environmental Sciences	Food Security, Climate Justice	https://tropicsu.org/climate-justice/
24	Reading: What is Climate Literacy?	Environmental Sciences, Humanities	Climate Change Overview, Communication	https://tropicsu.org/what-is-climate-literacy/

#	Teaching Tool Title	Disciplines	Key Topics	Link
25	Audio: Climate Change, Capitalism, and Communism in Arctic Communities	Humanities, Social Sciences, Environmental Sciences, Economics	Climate Change Overview, Environmental Migration, Communism, Capitalism, History	https://tropicsu.org/climate-change-capitalism-and-communism-in-arctic-communities/
26	Reading: Climate Change - Related Human Migration in Bangladesh	Social Sciences, Humanities, Environmental Sciences, Geography	Peace and Conflict Studies, Security Studies, Human Migration, Climate Refugee	https://tropicsu.org/climate-change-related-human-migration-in-bangladesh/
27	Model/Simulation and Classroom/Laboratory Activity: A Story Map on Climate Change and Human Migration	Social Sciences; Humanities; Geography; Environmental Sciences	Human Migration, Climate Refugees	https://tropicsu.org/a-story-map-on-climate-change-and-human-migration/
28	Video: COVID-19 and CO2 emissions	Environmental Science, Economics	Carbon Emissions, Economic Recovery, Economic Policy, Human Health, COVID-19 Pandemic and the Economy	https://tropicsu.org/covid-19-and-co2-emissions/
29	Model/Simulation: The Economics of Oil	Economics, Environmental Science	Climate Change Economics, Energy Economics, Carbon Emissions, Hubbert's Peak	https://tropicsu.org/the-economics-of-oil/
30	Video: Culture, Heritage and Climate Change	Social Sciences, Humanities, Environmental Sciences	Cultural Studies, Archaeology, Anthropology	https://tropicsu.org/culture-heritage-and-climate-change/
31	Classroom/Laboratory Activity: Quiz on Carbon Cycle	Environmental Sciences, Chemistry	Carbon Cycle, Biogeochemical Cycles	https://tropicsu.org/quiz-on-carbon-cycle/
32	Reading: Introduction to the Carbon Cycle	Environmental Sciences; Chemistry	Carbon Cycle, Biogeochemical Cycles	https://tropicsu.org/introduction-to-the-carbon-cycle/

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33	Reading: Carbon Sequestration in Soil	Chemistry, Environmental Sciences, Earth Sciences	Lithosphere, Carbon Cycle, Carbon Sequestration	https://tropicsu.org/carbon-sequestration-in-soil/
34	Reading: Carbon Sequestration and Climate Change	Chemistry, Environmental Sciences	Carbon Cycle, Biosphere, Lithosphere, Carbon Sequestration	https://tropicsu.org/carbon-sequestration-and-climate-change/
35	Video: The Maya Civilization and Climate Change	Social Sciences, Environmental Sciences	Archaeology, History, Cultural Studies	https://tropicsu.org/the-maya-civilization-and-climate-change/
36	Reading: The Concrete Problem	Chemistry, Environmental Sciences	Hydrocarbon, Carbon Emissions, Fossil Fuels, Environmental Chemistry, Pollution	https://tropicsu.org/the-concrete-problem/
37	Reading: Climate Change and Crop Pollination	Biological Sciences, Environmental Sciences, Agricultural Sciences	Entomology, Pollination, Adaptation, Botany, Biosphere, Agriculture, Food Security, Conservation	https://tropicsu.org/climate-change-and-crop-pollination/
38	Reading: The Locust Plague of East Africa	Environmental Sciences, Social Sciences, Agricultural Sciences	Food Security, Disasters and Hazards, Agriculture	https://tropicsu.org/the-locust-plague-of-east-africa/
39	Video: Droughts, Deforestation, Religion, and War	Environmental Sciences, Social Sciences	Human Migration, Climate Refugees, Peace and Conflict Studies, Security Studies	https://tropicsu.org/droughts-deforestation-religion-and-war/
40	Video: Evolutionary Adaptation in Response to Climate Change	Biological Sciences, Environmental Sciences	Evolutionary Adaptation, Adaptation, Species and Speciation	https://tropicsu.org/evolutionary-adaptation-in-response-to-climate-change/

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41	Reading: Climate Change and the Syrian Civil War	Social Sciences, Environmental Sciences	Security Studies, Peace and Conflict Studies, Human Migration	https://tropicsu.org/climate-change-and-the-syrian-civil-war/
42	Video: Global Warming and Sleep Deprivation	Biological Sciences, Environmental Sciences	Human Health	https://tropicsu.org/global-warming-and-sleep-deprivation/
43	Reading: Bark Beetle Outbreaks in Bhutan	Biological Sciences, Environmental Sciences	Biodiversity, Entomology, Ecology	https://tropicsu.org/bark-beetle-outbreaks-in-bhutan/
44	Reading: 'Move, Adapt or Die'	Biological Sciences, Environmental Sciences	Evolution, Natural Selection, Phenology, Genetics	https://tropicsu.org/move-adapt-or-die/
45	Video: Climate Change and Human Evolution	Biological Sciences, Earth Sciences, Environmental Studies, Social Sciences	Evolutionary Biology, Natural Selection, Species and Speciation	https://tropicsu.org/climate-change-and-human-evolution/
46	Reading: Climate Change and Locust Swarms	Environmental Sciences	Food Security, Agriculture, Locust Plague	https://tropicsu.org/climate-change-and-locust-swarms/
47	Reading: Mammalian Extinction due to Human-Induced Climate Change	Biological Sciences, Environmental Sciences	Biodiversity, Conservation, Species Extinction	https://tropicsu.org/mammalian-extinction-due-to-human-induced-climate-change/
48	Reading: Species extinction due to climate change	Biological Sciences, Environmental Sciences	Biodiversity, Conservation, Species Extinction	https://tropicsu.org/species-extinction-due-to-climate-change/

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49	Reading: IUCN Fact Sheet of Species Extinction due to Climate Change (Bramble Cay Melomys)	Biological Sciences, Environmental Sciences	Biodiversity, Species Extinction, Conservation	https://tropicsu.org/iucn-fact-sheet-of-species-extinction-due-to-climate-change-bramble-cay-melomys/
50	A Collection of E-Learning Courses on Climate Change	Earth Sciences, Environmental Sciences	Climate Change Overview, Earth's Climate, Adaptation and Mitigation	https://tropicsu.org/a-collection-of-e-learning-courses-on-climate-change/
51	Model/Simulation: Show Your Stripes: Changes in Temperature	Environmental Sciences	Earth's Climate, Recent Climate Change, Climate History, Atmosphere	https://tropicsu.org/show-your-stripes-changes-in-temperature/
52	Teaching Module: Teacher's Guidebook: Oceans and the Cryosphere	Environmental Sciences	Climate Change Overview, Glaciers, Sea Level Rise, The Greenhouse Effect, Adaptation and Mitigation	https://tropicsu.org/teachers-guidebook-oceans-and-the-cryosphere/
53	Online Course: Series of two E-Learning Courses on Introduction to Climate Change and Climate Science	Environmental Sciences	Climate Change Overview	https://tropicsu.org/series-of-two-e-learning-courses-on-introduction-to-climate-change-and-climate-science/
54	Classroom/Laboratory Activity: What are Aerosols?	Environmental Sciences	Aerosols, Environmental Chemistry, Pollution	https://tropicsu.org/what-are-aerosols/
55	Classroom/Laboratory Activity: Volcanoes and Climate	Environmental Sciences	Volcanoes, Aerosols, Environmental Chemistry, Pollution, Greenhouse Gases, Atmosphere	https://tropicsu.org/volcanoes-and-climate/
56	Classroom/Laboratory Activity: Thermal Potential of Carbon Dioxide	Chemistry, Environmental Sciences	Greenhouse Gases	https://tropicsu.org/thermal-potential-of-carbon-dioxide-2/

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57	Video: Permafrost and Climate Change	Geography, Environmental Sciences, Earth Sciences	Greenhouse Effect	https://tropicsu.org/permafrost-and-climate-change-2/
58	Classroom/Laboratory Activity: Permafrost and Climate Change	Geography, Environmental Sciences, Earth Sciences	Greenhouse Effect, Cryosphere, Glaciers	https://tropicsu.org/permafrost-and-climate-change-3/
59	Model/Simulation: pH Levels of Oceans and Atmospheric CO ₂	Environmental Sciences, Chemistry, Earth Sciences	pH Scale, Acids and Bases, Ocean Acidification, Hydrosphere	https://tropicsu.org/ph-levels-of-oceans-and-atmospheric-co2-2/
60	Video: Ocean Buffer Chemistry	Environmental Sciences, Chemistry, Earth Sciences	pH Scale, Acids and Bases, Ocean Acidification, Hydrosphere	https://tropicsu.org/ocean-buffer-chemistry/
61	Reading: Hydrocarbon Combustion	Chemistry, Environmental Sciences	Carbon Chemistry, Hydrocarbons, Greenhouse Effect, Greenhouse Gases, Carbon Emissions, Fossil Fuels	https://tropicsu.org/hydrocarbon-combustion/
62	Teaching Module: Climate Change and Water	Environmental Sciences	Climate Change Overview, Hydrosphere, Water Security, Human Migration, Disasters and Hazards	https://tropicsu.org/climate-change-and-water/
63	Online Course: An Introduction to Climate Change	Environmental Sciences, Earth Sciences	Climate Change Overview, Adaptation and Mitigation	https://tropicsu.org/an-introduction-to-climate-change/
64	Model/Simulation: Predicting Future Carbon Emissions	Economics, Environmental Sciences	Climate Change Economics, Carbon Emissions	https://tropicsu.org/predicting-future-carbon-emissions/

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65	Classroom/Laboratory Activity: Climate Change and Food Security in Africa	Social Sciences, Environmental Sciences, Geography	Food Security, Agriculture	https://tropicsu.org/climate-change-and-food-security-in-africa/
66	Reading: Climate Change and Agriculture	Social Sciences, Environmental Sciences, Geography	Climate Change Overview, Food Security, Agriculture	https://tropicsu.org/climate-change-and-agriculture/
67	Video: Visualizing the Carbon Emissions in New York City	Environmental Sciences	Climate Change Overview, Carbon Emission, The Greenhouse Effect	https://tropicsu.org/visualizing-the-carbon-emissions-in-new-york-city/
68	Online Course: The Science and Modeling of Climate Change	Earth Sciences, Environmental Sciences	Climate Change Overview, Earth's Climate, Carbon Cycle, Carbon Emissions	https://tropicsu.org/the-science-and-modeling-of-climate-change/
69	Teaching Module: Climate Change, the Environment, and Human Health	Environmental Science, Social Sciences	Human Health, Infectious Disease, Disasters and Hazards	https://tropicsu.org/climate-change-the-environment-and-human-health/
70	Video: Food Security	Environmental Science, Geography, Earth Sciences, Social Sciences	Climate Change Overview, Food Security, Agriculture	https://tropicsu.org/food-security-3/
71	Online Course: Climate Change Adaptation and Mitigation in African Cities	Geography, Environmental Sciences, Social Sciences	Peace and Conflict Studies, Human Migration, Climate Refugee, Urban Geography	https://tropicsu.org/climate-change-adaptation-and-mitigation-in-african-cities/
72	Game: Understanding Climate Vulnerabilities and Building Climate Resilience	Social Sciences, Humanities, Environmental Sciences	Public Policy, Adaptation and Mitigation	https://tropicsu.org/understanding-climate-vulnerabilities-and-building-climate-resilience/

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73	Game: Resource Management for Improving the Climate Resilience of Cities	Environmental Sciences	Climate Change Overview, Adaptation and Mitigation	https://tropicsu.org/resource-management-for-improving-the-climate-resilience-of-cities/
74	Reading: Impacts of Climate Change on Behavioural and Cognitive Psychology	Environmental Sciences, Social Sciences	Human Health, Psychology, Behavioural Psychology, Cognitive Psychology, Mental Health	https://tropicsu.org/impacts-of-climate-change-on-behavioural-and-cognitive-psychology/
75	Audio: Climate Change-related Human Migration–Policy Measures	Environmental Sciences, Social Sciences	Human Migration, Climate Refugees, Public Policy	https://tropicsu.org/climate-change-related-human-migration-policy-measures/
76	Video: Ancient Civilizations and Climate Change	Earth Sciences, Environmental Studies, Social Sciences	Anthropology, Archaeology, Climate History, Recent Climate Change, Anthroposphere, Cultural Studies, Earth's Climate	https://tropicsu.org/ancient-civilizations-and-climate-change/
77	The Coriolis Effect	Physics, Earth Sciences	Coriolis Effect, Atmosphere	https://tropicsu.org/the-coriolis-effect/
78	Energy, Gender and Climate Change	Social Sciences, Environmental Sciences	Gender Studies, Energy Security, Sociology	https://tropicsu.org/energy-gender-and-climate-change/
79	Risk of Bird Extinction	Biological Sciences; Environmental Sciences	Biodiversity, Species Extinction, Conservation, Biosphere, Extinction, Phenology	https://tropicsu.org/risk-of-bird-extinction/
80	What is the Hydrosphere?	Earth Sciences, Geography, Environmental Sciences	Climate Change Overview, Hydrosphere, Water Cycle	https://tropicsu.org/what-is-the-hydrosphere/

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81	If Global Temperature Rises by 4 C	Geography, Environmental Sciences	Sea Level Rise, Food Security, Agriculture, Urban Geography, Water Security, Disasters and Hazards	https://tropicsu.org/if-global-temperature-rises-by-4-c/
82	Climate Change and Human Health- Analysis and Policies	Biological Sciences, Social Sciences, Environmental Sciences	Human Health, Epidemiology, Infectious Disease, Public Policy, Biosphere	https://tropicsu.org/climate-change-and-human-health-analysis-and-policies/
83	Climate Solutions for Buildings Sector	Environmental Sciences, Economics, Earth Sciences	Carbon Emissions, Urban Geography, Real Estate, Urban Planning	https://tropicsu.org/climate-solutions-for-buildings-sector/
84	Precipitation Patterns and Climate Change	Chemistry, Environmental Sciences	Environmental Chemistry, Water Cycle, Biogeochemical Cycles	https://tropicsu.org/precipitation-patterns-and-climate-change/
85	Climate Solutions for Land Sinks Sector	Environmental Sciences, Economics, Earth Sciences	Agriculture, Biodiversity, Ecosystem, Conservation, Lithosphere, Climate Change and Food, Food Security	https://tropicsu.org/climate-solutions-for-land-sinks-sector/
86	Climate Solutions for the Transport Sector	Environmental Sciences	Carbon Emissions, Climate Change Economics, Economic Growth	https://tropicsu.org/climate-solutions-for-the-transport-sector/
87	Water, Gender and Climate Change	Social Sciences, Environmental Sciences	Gender Studies, Water Security	https://tropicsu.org/water-gender-and-climate-change/
88	Climate Change and Human Health in the United States	Environmental Sciences, Biological Sciences, Social Sciences	Human Health, Epidemiology, Infectious Disease, Psychology, Climate Psychology, Mental Health, Human Health	https://tropicsu.org/climate-change-and-human-health-in-the-united-states/

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89	Climate and the Hydrosphere	Earth Sciences, Geography, Environmental Sciences	Climate Change Overview, Hydrosphere, Cryosphere, Water Cycle	https://tropicsu.org/climate-and-the-hydrosphere/
90	Climate Solutions for the Food Sector	Agricultural Science, Geography, Economics, Environmental Sciences	Food Security, Agriculture, Carbon Emissions, Economic Growth, Climate Change Economics	https://tropicsu.org/climate-solutions-for-the-food-sector/
91	Biodiversity, Gender and Climate Change	Social Sciences, Environmental Studies	Gender Studies, Gender and Biodiversity, Biodiversity, Conservation	https://tropicsu.org/gender-cc-women-for-climate-justice/
92	Climate Solutions for Health and Education Sector	Humanities, Social Sciences, Environmental Sciences	Gender, Human Health, Sociology, Public Policy	https://tropicsu.org/climate-solutions-for-health-and-education-sector/
93	Who Is Responsible for Climate Change? Who Needs to Fix It?	Environmental Sciences, Social Sciences	Climate Change Overview, Political Science, Capitalism, Carbon Emissions, Fossil Fuels	https://tropicsu.org/who-is-responsible-for-climate-change-who-needs-to-fix-it/
94	Climate Risk and Megacities	Social Sciences, Geography, Environmental Sciences	Urban Geography, International Relations, Human Migration, Security Studies, Peace and Conflict Studies, Climate Refugees	https://tropicsu.org/climate-risk-and-megacities/
95	Climate Solutions for Engineered Sinks Sector	Environmental Sciences	Carbon Emissions, Carbon Sequestration	https://tropicsu.org/climate-solutions-for-engineered-sinks-sector/
96	Teachers Guidebook: Oceans and the Cryosphere	Earth Sciences, Environmental Sciences	Climate Change Overview, Adaptation and Mitigation, Hydrosphere, Sea Level Rise, Greenhouse Effect	https://tropicsu.org/teachers-guidebook-oceans-and-the-cryosphere/
97	Climate Solutions for Industry Sector	Environmental Sciences, Economics, Earth Science	Carbon Emissions, Adaptation and Mitigation, Climate Change Economics, Economic Growth, Economic Policy, Economic Recovery, Energy, Renewable Energy,	https://tropicsu.org/climate-solutions-for-industry-sector/

#	Teaching Tool Title	Disciplines	Key Topics	Link
98	Climate Solutions for Transportation Sector	Environmental Sciences	Carbon Emissions, Climate Change Economics, Economic Growth, Economic Policy, Economic Recovery, Fossil Fuels, Carbon Sequestration	https://tropicsu.org/climate-solutions-for-transportation-sector/
99	Human Migration and Displacement	Social Sciences, Geography, Environmental Sciences	Human Migration, Environmental Migration, Climate Refugees, War, Peace and Conflict Studies, International Relations, Security Studies	https://tropicsu.org/human-migration-and-displacement/
100	Food Insecurity in Somalia	Social Sciences, Geography, Environmental Sciences	Food Security, Agriculture	https://tropicsu.org/food-insecurity-in-somalia/
101	Climate Change and Bird Migration	Biological Sciences, Environmental Sciences	Environmental Migration, Range Shifts	https://tropicsu.org/climate-change-and-bird-migration/
102	Human Health, Vector-Borne Diseases, and Climate Change	Biological Sciences, Environmental Sciences	Infectious Disease, Epidemiology, Human Health	https://tropicsu.org/human-health-vector-borne-diseases-and-climate-change/
103	Beer-Lambert Law	Environmental Sciences, Chemistry	Carbon Chemistry, The Electromagnetic Spectrum, Greenhouse Effect, Greenhouse Gases	https://tropicsu.org/beer-lambert-law/
104	The Discovery of Global Warming	Physics, Earth Sciences, Environmental Sciences, Geography	Climate Change Overview, Greenhouse Effect, Global Warming, Climate Physics, Earth's Climate System, Earth's Climate	https://tropicsu.org/the-discovery-of-global-warming/
105	The Climate Minute Podcast	Environmental Sciences, Biological Sciences, Social Sciences	Human Health, Disease, Infectious Disease	https://tropicsu.org/the-climate-minute-podcast/

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106	What is the Atmosphere?	Earth Sciences, Geography, Environmental Sciences	Climate Change Overview, Atmosphere	https://tropicsu.org/what-is-the-atmosphere-2/
107	Air Travel and Carbon Offset	Economics, Environmental Sciences	Climate Change Economics, Carbon Emissions, Fossil Fuels, Pollution, Carbon Tax	https://tropicsu.org/air-travel-and-carbon-offset/
108	Sea Level Rise	Earth Sciences, Geography, Environmental Sciences	Recent Climate Change, Sea Level Rise, Disasters and Hazards, Hydrosphere	https://tropicsu.org/sea-level-rise/
109	Climate Solutions for the Infrastructure Development Sector	Economics, Chemistry, Environmental Sciences	Carbon Emissions, Climate Change Economics, Greenhouse Gases, Molecular Structure of Compounds, Carbon Chemistry	https://tropicsu.org/climate-solutions-for-the-infrastructure-development-sector/
110	Infectious Diseases In A Warming World	Biological Sciences, Environmental Sciences	Human Health, Epidemiology, Disease, Infectious Disease	https://tropicsu.org/infectious-diseases-in-a-warming-world/
111	Climate Solutions for Buildings and Cities	Environmental Sciences, Economics	Carbon Emissions, Climate Change Economics, Economic Growth, Real Estate, Urban Planning	https://tropicsu.org/climate-solutions-for-buildings-and-cities/
112	How Yukon glaciers are responding to climate change	Geography, Earth Sciences, Environmental Sciences	Glaciers, Cryosphere	https://tropicsu.org/how-yukon-glaciers-are-responding-to-climate-change/
113	Has Humanity Pushed Earth into a New Geological Epoch: the “Anthropocene?”	Environmental Sciences, Earth Sciences	Climate Change Overview, Climate History, Recent Climate Change, Anthropocene, Anthroposphere	https://tropicsu.org/has-humanity-pushed-earth-into-a-new-geological-epoch-the-anthropocene/