

Air Yeah

Moody High School, AL



Watch Now

As in any terrestrial ecosystem, the Great Smoky Mountains are changed by the type, structure, and proportion of gas molecules in the surrounding air. Ozone (O₃), sulfur oxide (SO₂), and nitrogen oxide (NO₂) are examples of molecules that, in great proportions, disrupt environmental equilibrium, biodiversity, the hydrologic cycle, etc. Nonrenewable resources (e.g. coal, gas) contribute to the increased presence of these molecules, while renewable resources (e.g. wind, solar) do not. Students who reduce the amount of nonrenewable resources they consume directly influence local environments and the ecosystems of other areas, like the Smokies.

LIFE SCIENCE

6.LS2.6	Research the ways in which an ecosystem has changed over time in response to changes in physical conditions, population balances, human interactions, and natural catastrophes.
6.LS4.2	Design a possible solution for maintaining biodiversity of ecosystems while still providing necessary human resources without disrupting environmental equilibrium.

PHYSICAL SCIENCE

7.PS1.1	Develop and use models to illustrate the structure of atoms, including the subatomic particles with their relative positions and charge.
7.PS1.3	Classify matter as pure substances or mixtures based on composition.

ENGINEERING, TECHNOLOGY & APPLICATIONS OF SCIENCE

6.ETS1.1	Evaluate design constraints on solutions for maintaining ecosystems and biodiversity.
----------	---

EARTH & SPACE SCIENCE

4.ESS3.1	Obtain and combine information to describe that energy and fuels are derived from natural resources and that some energy and fuel sources are renewable (sunlight, wind, water) and some are not (fossil fuels, minerals).
4.ESS3.2	Create an argument, using evidence from research, that human activity (farming, mining, building) can affect the land and ocean in positive and/or negative ways.
6.ESS2.4	Apply scientific principles to design a method to analyze and interpret the impact of humans and other organisms on the hydrologic cycle.
6.ESS3.1	Differentiate between renewable and nonrenewable resources by asking questions about their availability and sustainability.
6.ESS3.2	Investigate and compare existing and developing technologies that utilize renewable and alternative energy resources.
6.ESS3.3	Assess the impacts of human activities on the biosphere including conservation, habitat management, species endangerment, and extinction.
7.ESS3.1	Graphically represent the composition of the atmosphere as a mixture of gases and discuss the potential for atmospheric change.
7.ESS3.2	Engage in a scientific argument through graphing and translating data regarding human activity and climate.

Ozone is forming on the ground
 Breaking the double 'O', oxygen takes the 'O'
 But then there are hydrocarbons
 And they are reacting with the 'NO'
 Combined, NO₂ is appearing
 And the cycle goes on making O₃ now
 Ozone damages plants and burning up in our lungs
 So we are gasping now
 Air Yeah!

The coal is burning, oh the gas is burning
 SO₂ and NO₂, the sky is raining it all
 Precipitation, oh acidic raining
 The pH is getting lower and the snail shells dissolve
 The waterway has certainly been better
 And we make all of this pollution
 So why are you, why are we so in denial?
 When we know we are all breathing here
 Air Yeah!

Alright, now fellas, what's better than SO₂? (O₂)
 I can't hear you. I said what's better than SO₂? (O₂)
 Okay, now ladies, we're going to break this thing down in just a few seconds
 Now, don't have me breaking this thing down for nothing
 I want to see y'all on your cleanest behavior
 Install some scrubbers, I am your neighbor
 Clean it for a positive future

We all go walking and biking too
 We can install wind and solar
 Protecting O₂, you can do it too
 Air Yeah!