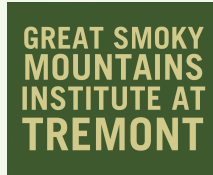


Lichens Are So Awesome

Rockford Elementary, TN



Watch Now

Lichens abound in the Great Smoky Mountains. Consisting of a symbiotic relationship between fungi and algae, lichen is a primary producer that can survive in seemingly barren areas (e.g. rocks, tree bark, burned land). Lichen can eventually become substrate for other plants to grow. This is especially important in restoring terrestrial ecosystems after natural disasters and land changes due to human activity. Once the park was established and logging ceased in this region, these organisms helped restore the eroded hillsides with plant life once more. Today, students who recognize lichens in the Smokies and their local communities can understand and educate others about their importance in starting environmental succession.

LIFE SCIENCE

4.LS2.2	Develop models of terrestrial and aquatic food chains to describe the movement of energy among producers, herbivores, carnivores, omnivores, and decomposers.
4.LS2.3	Using information about the roles of organisms (producers, consumers, decomposers), evaluate how those roles in food chains are interconnected in a food web, and communicate how the organisms are continuously able to meet their needs in a stable food web.
4.LS2.4	Develop and use models to determine the effects of introducing a species to, or removing a species from, an ecosystem and how either one can damage the balance of an ecosystem.
4.LS2.5	Analyze and interpret data about changes (land characteristics, water distribution, temperature, food, and other organisms) in the environment and describe what mechanisms organisms can use to affect their ability to survive and reproduce

6.LS2.2	Determine the impact of competitive, symbiotic, and predatory interactions in an ecosystem.
6.LS2.3	Draw conclusions about the transfer of energy through a food web and energy pyramid in an ecosystem.
6.LS4.2	Design a possible solution for maintaining biodiversity of ecosystems while still providing necessary human resources without disrupting environmental equilibrium.

EARTH & SPACE SCIENCE

4.ESS2.3	Provide examples to support the claim that organisms affect the physical characteristics of their regions.
4.ESS2.2	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.

Walking through the woods
Saw a mighty landslide
This disturbed surface
Isn't showing any life
Staring up the hill
Wonder if there'll be
New life

Saw lichen spreading out
Using the sun's power
These pioneer species are the
Creatures of the hour
A fungus and some algae
Bringing life back tonight

So rocks are covered
Then the land will heal
Life is started
Time will reveal
Ecosystems forming

Lichens growing
Catching wind and the rain
Lichens growing
Catching little grains
Soil accumulating

Growing on a stone
Up in the Smokies
Now the grass is getting taller
Succession happening
The bushes growing in now
Creating habitats now

Youngest forest growing in now
Biodiverse
Trees getting really big now

Climax community
The ecosystem is back
Lichens brought life back
Once more

So rocks are covered
Then the land will heal
Life is started
Time will reveal
Ecosystems forming

Lichens growing
Catching wind and the rain
Lichens growing
Catching little grains
Soil accumulating

Lichens are so awesome
Everything is cool when you're part of a
team
Lichens are so awesome on a rock or a tree
Everything is better when we stick together
Side-by-side, the fungi going to stick
wherever

The algae producing, surviving
I like you, you like me, we're all working in
harmony

Lichens are so awesome
Everything is cool when you're part of a
team
Lichens are so awesome on a rock or a tree