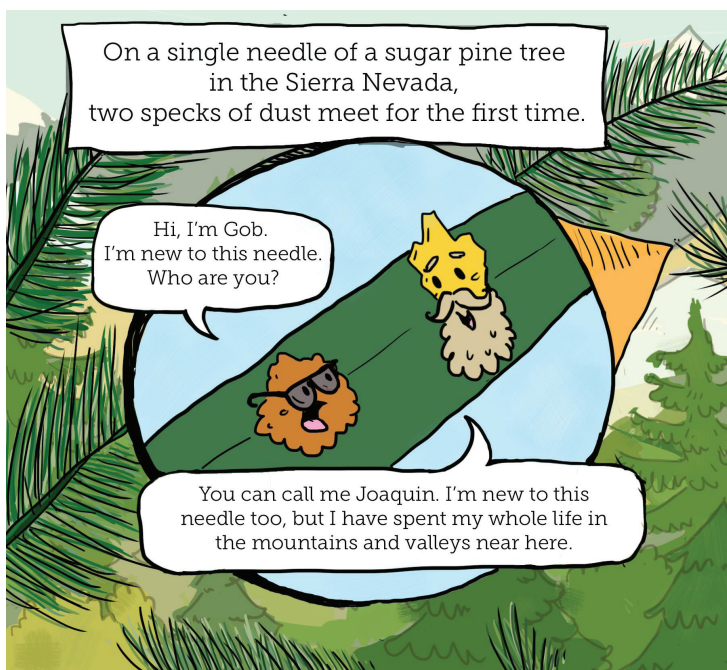




This comic is available online on [Adventures in the Critical Zone](#), a blog hosted by the U.S. National Science Foundation Critical Zone Observatories Program.



I've spent millions of years traveling around here.
I lived in the middle of a mountain, the top of a hill, the bottom of a river.



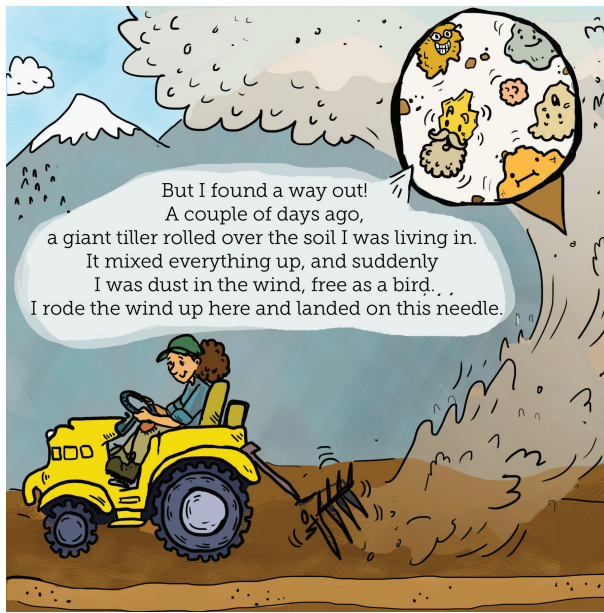
Soil is nutritious
and delicious!

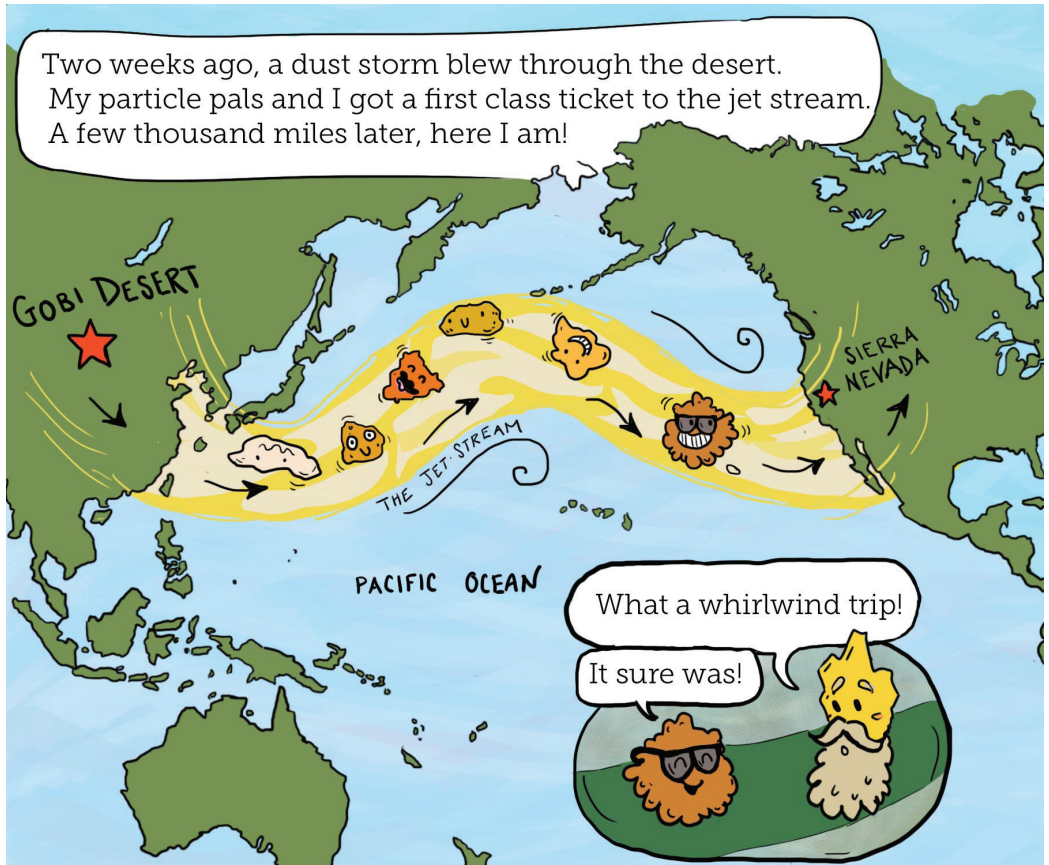
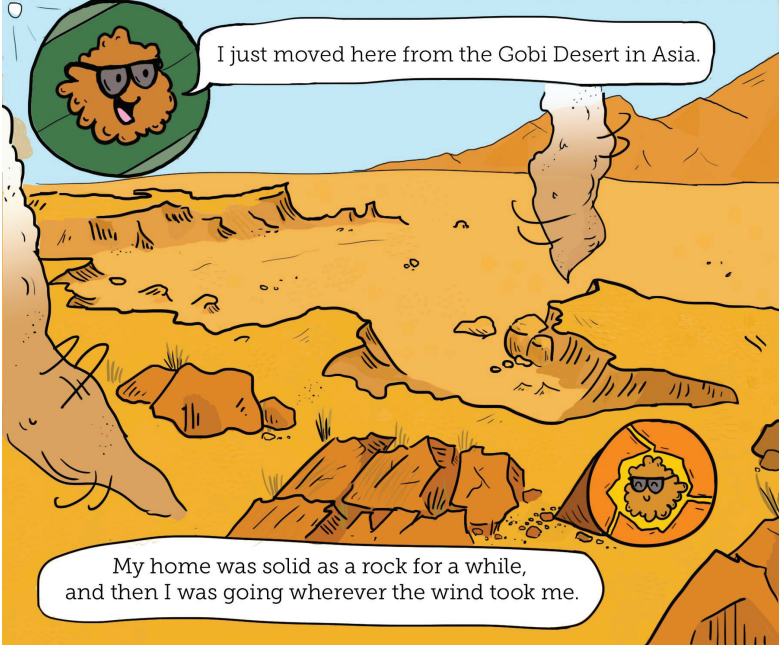
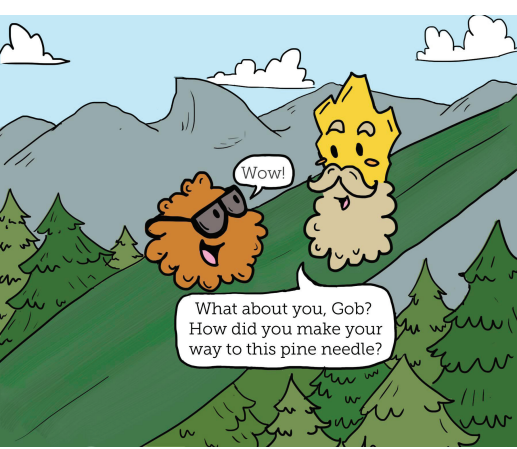
Eventually I settled in the Great Valley below here,
and I stayed there in that valley's soil for thousands of years.
It was a long time to be in one place.
I didn't know how to get moving again.

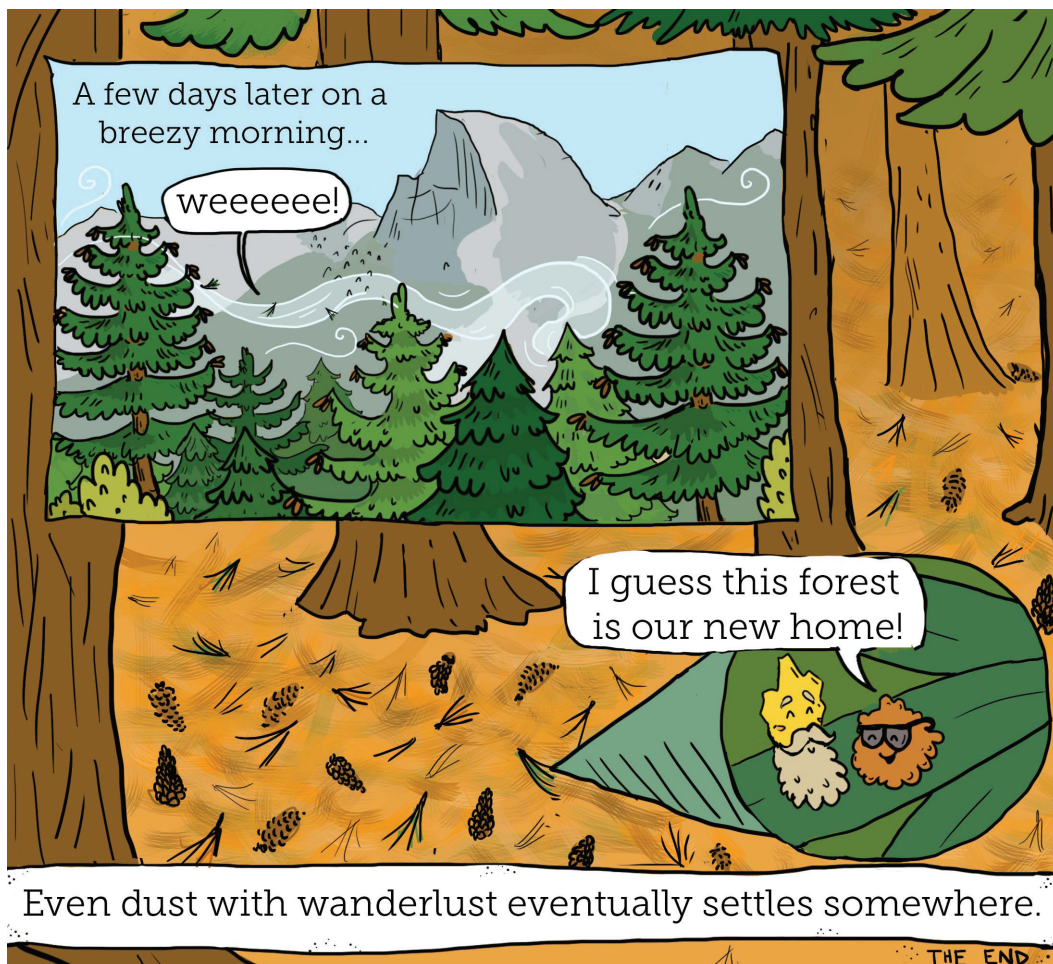
It sounds like you were stuck between
a rock and a hard place.

I was, but around here we call it a hard pan.

But I found a way out!
A couple of days ago,
a giant tiller rolled over the soil I was living in.
It mixed everything up, and suddenly
I was dust in the wind, free as a bird.
I rode the wind up here and landed on this needle.







Even dust with wanderlust eventually settles somewhere.

Critical zone scientists recently found that dust helps support ecosystems around the world. Dust provides important nutrients like phosphorus to Sierra Nevada forests. Most of the dust in the Sierra Nevada comes from the Central Valley of California and the Gobi Desert in Asia. Dust particles are incorporated into soil and eventually taken up by vegetation growing in that soil. As climate and land use change with time, dust will continue to impact ecosystems in the future.

The researchers' findings were published in two scientific papers in 2017: [Aciego et al.](#) and [Arvin et al.](#) Learn more on criticalzone.org/sierra.