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What If All Glaciers Melted?



Illustrated by Barbora Kmecová

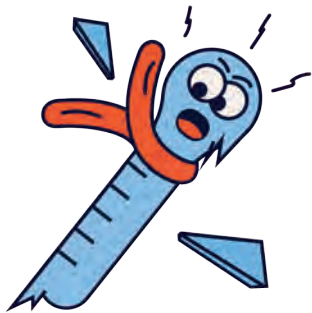
What If All Glaciers Melted?

Written by Katarína H. Belejová

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All glaciers melted

Cold, snow, ice, wind. Glaciers aren't exactly known for pleasant weather and few would choose to vacation there. Still, they're vital for us, and should we allow them to melt, we'd have an enormous problem on our hands.



LIKE SNOWMEN IN THE SPRING

Due to human activity, Earth is warming quickly and as a result the glaciers are slowly melting. The majestic icy kingdoms are dissolving, drowning in water, or flowing down the mountains. If we don't manage to slow down global warming by 2050, by 2100 there won't be any Alpine glaciers left.



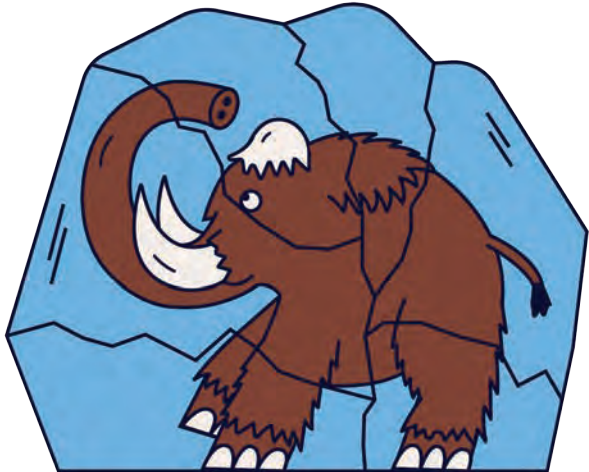
IN THE MIDDLE OF THE SEA OR ON THE TOP OF MOUNTAINS

There are two types of glaciers. The continental glaciers can be found mostly around Earth's poles. They're sort of like icy islands, and include for example the Arctic or Greenland. The other type is located high in the mountains, such as in the Himalayas or Alps, which is why they're known as mountain glaciers.



LIVING WASTELAND

At first glance, a landscape that consists entirely of glaciers may seem pretty inhabitable, but don't let its appearance deceive you. The snowdrifts hide interesting creatures that live nowhere else on Earth—for instance cute penguins or shaggy white polar bears. No exaggeration, researchers love glaciers of all types! That's because ice functions like a fridge or a tin and can preserve animals and plants for thousands of years.



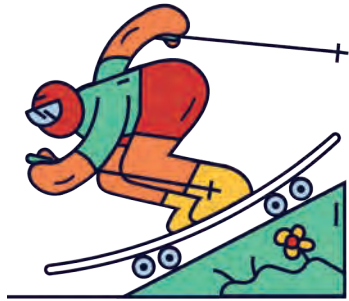
THE GROUND WOULD CRACK

Glaciers melting could cause significant changes in their immediate vicinity. When ice melts, the ground surrounding it cracks which can result in holes in roads, cracked building walls, or grown trees tilting dangerously. This means that everything around the glacier would end up sort of... cracked.



ANIMALS WOULD STARVE

We've already learned that polar bears live in the icy regions around the South Pole. But as their natural habitat diminishes, so does the food naturally available to them.



WE'D HAVE TO USE WHEELED SKIS

Many people go out to ski on mountain glaciers every year. But if these glaciers melt as assumed by lots of scientific studies, skiers will have to give up their hobby... or attach wheels to their skis.



OCEAN LEVELS WOULD RISE AND MOUNTAINS DIMINISH

The melted glaciers would flow directly into the oceans. And because glaciers contain lots of water, ocean levels would rise significantly. As a result, coastal towns or villages would have to be rebuilt or moved elsewhere. If every single mountain glacier melts, the height of many mountains and mountain ranges would change as well.

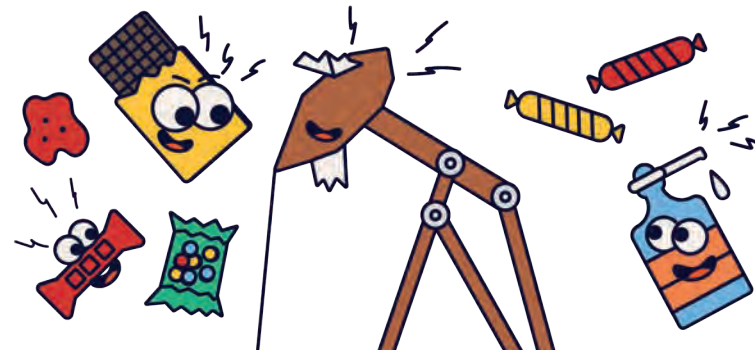
MARINE ANIMALS WOULD STARVE

On one hand, ocean inhabitants would have more living space but on the other they'd be put on an involuntary diet. That's because the bottom part of glaciers is covered with tiny algae which go on to feed krill—miniscule shrimps that make up a substantial part of the plankton. In turn, plankton is eaten by small fish and those by large fish. If the algae were to disappear, it wouldn't take long for everyone in the ocean to run out of food.



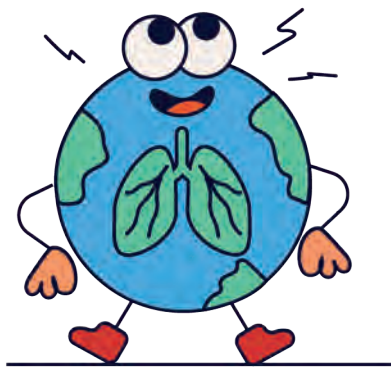
We felled all the forests

Forests make up almost one third of the Earth's landmass, but every year we fell or otherwise destroy so many of them they'd fit into 27 football pitches. Main reasons include arable land expansion, city growth, lumbering, mining, palm oil production, and making space for livestock.



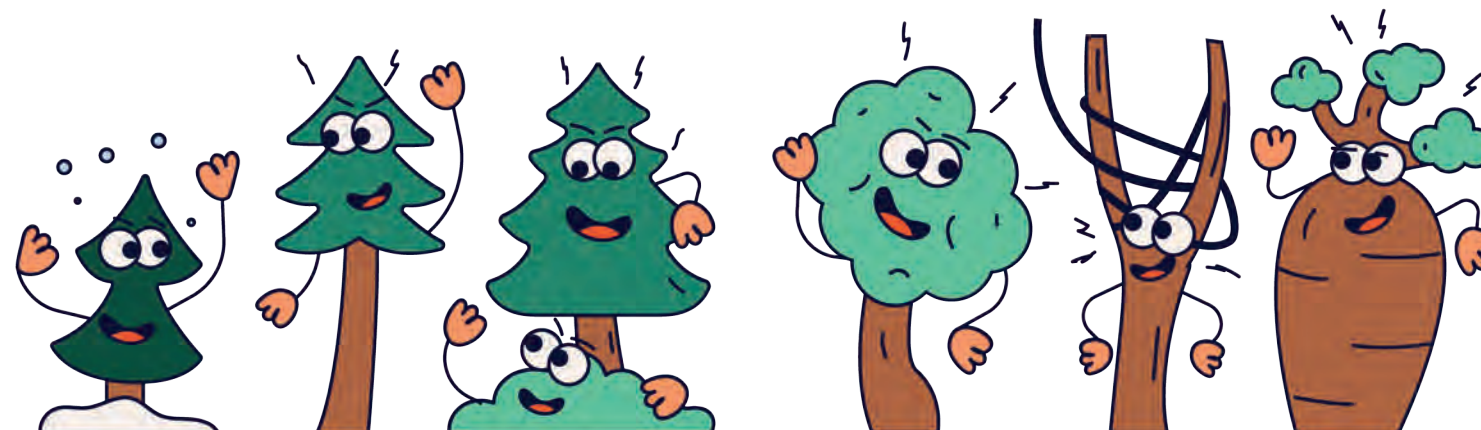
BREATHING TOGETHER

You've no doubt heard that forests are the lungs of the planet. But why? It's because trees need carbon dioxide to grow, a gas that's poisonous to people and most animals. Plants, however, turn the toxic carbon dioxide into the oxygen all of us breathe. They also filter the air, allowing us to breathe better.



FIRE AND TECHNOLOGY

When discussing forests being chopped down, we're not talking about axe-wielding lumberjacks who enjoy a well-deserved noon break and gobble their lunch in the shadow. Forests are felled on an industrial scale, using heavy noisy machinery. Large areas are also being burnt down.



NO TWO FORESTS ARE CREATED EQUAL

There are Scandinavian forests known as taigas, full of conifers, firs, or pines and with the floor covered with soft moss; temperate forests with leafy and coniferous trees, raspberry and blueberry bushes, or mushrooms; and tropical rainforests with tall trees tangled in lianas where we can find the greatest amount of animal and plant species in the world.

RAINFOREST TRIBES WOULD VANISH

Deep rainforests house tribes which have maintained their traditional way of life to this day — such as the African Pygmy peoples. For several centuries they've lived in harmony with the forest which provides them home and food. It's so important to them that although individual Pygmy tribes speak different languages they all use the word Jengi when talking about the spirit of the forest. If the rainforest were to disappear, so would Jengi.



WE WOULD ENCOUNTER WILD ANIMALS ALL THE TIME

Animals that live in forests, in treetops, dens, under roots, or in bushes, would lose their homes and have to look for a shelter elsewhere. They'd likely move closer to the cities and us, humans. And although you might think this would be great, you likely wouldn't be as enthusiastic if you met a wild bear, wolf, or another predator.

WE'D SWEAT A LOT

When a tree dies, the carbon dioxide it accumulated throughout its life is released into the atmosphere. If there's a lot of it, the planet starts to get warmer until we can't stand the heat. That's why the carbon dioxide is known as a greenhouse gas — it literally turns the Earth into a giant hot greenhouse. And because trees clean the air, this greenhouse would smell pretty bad, too.

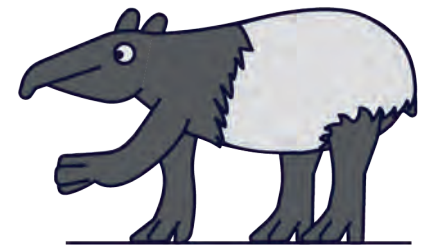


PEOPLE WOULD DEFINITELY BE SADDER

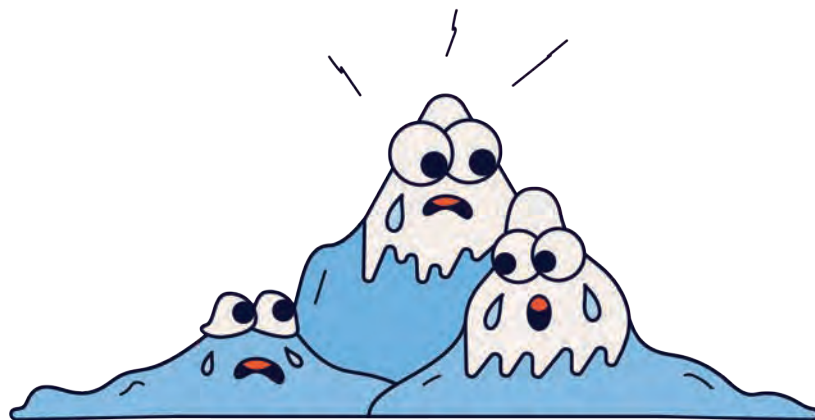
Research shows that being in a forest reduces a person's fatigue and stress level. The rustling of the trees and the green colour of the leaves or moss evoke feelings of relief and relaxation. That's why many people go into forests to have a rest, play, or pick mushrooms. Without forests we'd never experience any of this ever again.

WE'D LOSE LOTS OF AMAZING ANIMAL SPECIES

Scientists have calculated that over 10% of all known animal species live in rainforests and nowhere else. If the rainforest disappeared, some of those species would be unable to adapt to new environments and die out.



...and other bad scenarios



Have you ever wondered what Earth might look like in 100 years? Are you thinking of flying cars, robots, and virtual worlds? We might actually live long enough to see such conveniences, though it's also possible that less pleasant things are lying in wait for us—all glaciers melting, drinking water running out, or forests and soil disappearing, taking many animals and people with them. Basically, that we might lose everything that's necessary for life to continue on Earth. Don't despair, though; it's not happening yet, and even if it were, there's still time to set things right. Still, let's take a look at what the world would look like if we did run out of time.