

Walter the Water Molecule

Take a Journey Through the Water Cycle



Walter is having a blast, dancing on the surface of the Atlantic Ocean in the bright sun. Waves bounce him against zillions of other water **molecules** like himself, not to mention all the salt molecules in **seawater**. As he reaches the **crest** of a wave, a gust of wind carries Walter and his buddies off in a drop of spray. They shriek wildly as the drop whips through the air to land "Plop!" back in the water.

Walter reaches the peak of another wave. "Hang on! Here we go again!" But this time the water molecules don't hang together. The warm sunlight gives them a boost of energy, and each goes flying off like a balloon set loose. Walter is now part of a wild party of molecules in the air—oxygen, carbon dioxide, nitrogen, and other water molecules—rising higher and higher into the atmosphere.

The winds take Walter to the west. Floating in the sky, Walter looks down at a beach, where the waves he rode a while ago pound against the sand. He is way up now, far above towns, ballfields, and roads. Looking ahead, he can see a range of mountains approaching—the Catskills, overlooking a broad **river valley**.

The winds carry Walter higher as they reach the Catskills. It is getting colder now, and Walter and his buddies have lost some of the energy they had earlier. He and a few others rest against a **particle** of dust floating



nearby. Other water molecules are doing the same thing nearby, forming tiny drops of water around the dust particles. Looking down, Walter sees that the crowd of tiny water drops around him is casting a shadow on the treetops below. It has become a cloud.

More water molecules pile on to Walter's drop, making it bigger and heavier. The wind can't keep it up anymore. The drop starts falling, faster and faster. Walter waves to other molecules in the air as he zips past, his raindrop racing other drops as they fall towards the ground. He reaches out to tap the leaves of trees just before—splat!—his raindrop hits the ground and splashes into smaller droplets.

The droplets bounce and settle back down. Some slip between the leaves on the forest floor and into the soil beneath, off to explore underground. Walter's droplet combines with others running downhill in tiny **streams**. These meet to form larger **brooks**, sliding down the slopes into still bigger **creeks**. As Walter's creek flows over a large flat rock, it starts to pick up speed. Suddenly Walter is falling again, deafened by the roar of the creek pouring into the pool at the base of a waterfall. A few minutes later, he plunges over another cliff, the second drop in the Kaaterskill Falls, 260 feet tall.



Rushing onward, Walter enters the Kaaterskill Creek in the Kaaterskill Clove, a steep valley that the creek has **eroded** in the mountainside. For Walter, it is as wild a time as he had on the ocean's waves. He rides rapids, spins in **whirlpools**, and nearly flies into the air again from the foam under another waterfall. But soon the creek reaches flat land at the foot of the Catskills and slows down. Walter relaxes, wondering what lies ahead as the Kaaterskill Creek joins the Catskill Creek.

Lulled by the lazy **current**, Walter is about to take a nap when a large dark shadow looms up before him. Next thing he knows, Walter is sucked into the gaping mouth of a fish—a big carp. Before he has time to blink, Walter is pushed past the carp's red **gills** and back into the creek. Three feet of golden **scales** and **fins** slip by as the great fish swims on.



The Catskill Creek takes Walter to the Hudson **River**, and he notices that the Hudson behaves oddly for a river. Its current keeps reversing direction. Twice each day it flows back towards the mountains. At the same time, the river level rises and falls—rising as the current flows towards the mountains, falling as it flows the other way. Walter realizes that this is the motion of the **tides**—the same tides he felt out in the ocean. He also sees fish that he remembers from the sea, like striped bass. “But where are all the salt molecules?” he asks himself. “There are only a few here.”

It takes time to answer this question. **Drifting** south for six hours, then north for the next six hours, Walter doesn't seem to be going anywhere. But as days pass, he notices that he always drifts further going south than he does going north. Eventually, at a place where steep mountains crowd up against the river, he starts to see more salt molecules. Their number increases each day as he drifts further south towards the Atlantic Ocean. Reaching a great city, with tall buildings lining the river's shores, Walter knows the ocean isn't far away. He can't believe that seahorses and flounder are now swimming past him.

Sure enough, in a few more days land is far behind. The tall buildings disappear over the **horizon**. Walter is back among ocean waves, sparkling in the bright sun. He is just starting to wonder what his next adventure might be when a huge shape appears under him. It's bigger—much, much bigger—than the carp in Catskill Creek. Just as Walter realizes he's on top of a whale, the great animal **exhales**. Its **spout** blasts him upwards, and he finds himself floating in the air again. But this time, the wind is blowing him east, heading out over the Atlantic. “Maybe I'll make it to Europe,” Walter says to himself, settling in for the ride.

Walter has had many adventures. You have heard only a few of them here. He has been sucked up by tree roots and pulled high into the tips of tall trees. He's journeyed from reservoirs to kitchen sinks, and through thirsty fifth graders. He's been underground, flowing through tiny cracks in bedrock and then bubbling up in springs. He's been frozen in glacial ice for thousands of years (Brrr and Bor-ing!).

Your assignment is to write a story describing more of Walter's adventures. You may continue from where this story left off, or write a completely separate tale.

