蜡烛把水吸进了杯子

老师把半截蜡烛立在浅水盆中央，按了一下，蜡烛歪了，她又按第二下。水盆里的水刚没过蜡烛的底座，亮黄色的火苗在清水上面晃。教室里有人小声说，这是要做蜡烛火锅吗？老师没笑，只是从讲台下拿出一只透明的玻璃杯。

杯子倒扣下去的那一瞬间，火苗还在。它被罩在一个小小的空气圆顶里，先是直着烧，然后开始斜，往一边倒，又挣扎着直回来。我盯着看，火苗越来越矮，最后在水面上留下一缕白烟，灭了。就在这时，坐在老师斜对面的小声喊了出来：水在往上爬！

真的在爬。盆里的水正顺着杯口那道缝往杯子里进，杯底的水位一寸一寸涨，涨到比盆里的水面高出两指才停。我们七嘴八舌地猜。有人说水被火吸进去了，有人说杯子把水挤进去了，还有人说蜡烛把水喝掉了。老师把粉笔递给我，让我把大家说的写在黑板上，然后只问了一句：你们再看看，杯子里的东西，少没少？

我凑近看。杯壁上蒙着一层细雾，火灭之前杯顶的空气里飘着白烟。我忽然想到，火苗在杯子里烧的时候，是没有风的，它烧的是杯子里那一团空气。烧完了，空气没了，外面压着水，水就进来了。我把这个想法说出来，老师点点头，又补了半句：蜡烛燃烧吃掉了空气里的氧气，生成的东西溶进了水，杯里的压力变小，是外面的大气压把水压进去的。原来不是杯子吸的水，是外面整个世界压的水。

下课铃响了，我们组四个人没走，围着水盆又做了一遍。第二次我们换了只细长的杯子，水位爬得更高，几乎到杯子的三分之一。小宇说他回家要试大号的汤碗，我拦他：汤碗扣不灭蜡烛，只会把汤弄洒。他想了想说也对，那就用鱼缸。

那天放学回家的路上，我一直在看路边的火。烧落叶的、点香烛的、饭店后厨的炉子。以前我觉得火就是火，烧起来就烧起来了。现在我知道，每一团火底下都在悄悄吃空气，只是平时有风、有烟囱、有整个屋子替它补着，看不见。只有被一只杯子罩住的那几秒，它才把真相露出来：火要呼吸，空气要平衡，而水，一直在等着那个空出来的位置。

The Candle That Sucked Water into the Cup

Our teacher stood half a candle in the middle of a shallow water basin and pressed it down once. The candle leaned. She pressed it again. The water in the basin barely covered its base, and a bright yellow flame flickered above the surface. Someone in class whispered: are we making candle hot pot? The teacher did not smile. She just reached under the desk and brought out a clear glass cup.

The instant the cup went down over the flame, the fire was still alive. It burned inside a small dome of air, first straight, then tilting to one side, then struggling back upright. I watched it shrink lower and lower until it left a thread of white smoke on the water and went out. Right then, Xiao Sheng, sitting diagonally across from the teacher, shouted: the water is climbing!

It really was climbing. Water from the basin was creeping into the cup through the seam at its rim, rising inch by inch off the bottom, stopping only when it stood two fingers higher than the water outside. We all guessed at once. Someone said the fire sucked the water in. Someone said the cup pushed it in. Someone else said the candle drank it. The teacher handed me the chalk and asked me to write every guess on the blackboard, then asked one question: look again. Did anything inside the cup get less?

I leaned close. The cup walls were fogged with fine mist, and before the flame died, white smoke had drifted in the air at the top. It hit me then: while the flame burned inside the cup, there was no wind. It was burning the one pocket of air trapped in there. When that ran out, the air was gone, and the world outside pressed on the water, so the water moved in. I said it out loud. The teacher nodded and added half a sentence: the candle consumed the oxygen in the cup, what it produced dissolved into the water, the pressure inside dropped, and it was the air pressure outside that pushed the water in. So the cup did not suck the water up. The whole world outside pushed it.

The bell rang and the four of us stayed, running the basin experiment again. The second time we used a tall narrow cup, and the water climbed almost a third of the way up. Xiao Yu said he would try it at home with a big soup bowl. I stopped him: a soup bowl will not put out a candle, it will only ruin the soup. He thought about it and agreed. Then he said he would use the fish tank.

On the walk home I kept watching every fire on the street. Leaves burning in a gutter, incense candles at a doorway, the stove behind a restaurant. Before that day, fire was just fire, and it burned, and that was that. Now I know that under every flame, air is being eaten quietly away. Usually there is wind, a chimney, a whole house making it up for the fire, so you cannot see it. Only for the few seconds when a cup traps it does the truth show: fire needs to breathe, air needs its balance, and the water has been waiting all along for the space that opens up.