蜡烛在杯子里站起来的瞬间

教三年级科学第七年，我越来越确信一件事：一节课的成败，往往就藏在开头那三分钟里。这周讲空气，我提前把演示器材搬上讲台：一只浅盘、半杯水、一截短蜡烛、一盒火柴，还有六只矮胖的玻璃杯。

上课铃刚响，我把蜡烛立在浅盘中央点燃，火苗在四十双眼睛前晃。我问：如果我把杯子扣上去，蜡烛会怎样？教室里立刻分成两派，一派说会灭，一派说会灭但想不出为什么。我把玻璃杯垂直扣下，蜡烛挣扎了两秒，灭了。孩子们齐齐哦了一声，觉得不过如此。

真正的把戏在后面。我换了一只杯子，扣下去之前往浅盘里又添了些水。蜡烛熄灭的那一瞬，盘里的水像被谁一口吸走，哗地涌进杯子里，水位肉眼可见地爬升。全班安静了半秒，然后炸开了：水自己爬上去了！我趁势把杯子举高，让最后一排也看清那道悬在半空的水线。

接下来是分组。六个小组各领一套器材，重复这个把戏。教室里顿时热闹起来，火柴划亮的啪啪声、水涌进杯子的咕咚声、一声接一声的哇，混成一片。有个平时最坐不住的男孩这回合计重做了三遍，每遍都认真记录水位到第几格，比哪次写作业都专注。

实验后的讨论我留了整整十五分钟。有孩子说杯子把空气吃掉了，才有水进来；有孩子不同意，说空气没少，是蜡烛把里面的空气烧坏了。我们不急着要标准答案，一起翻书、查资料，最后落到气压上。那个男孩举手问：那冬天窗户上的水雾，是不是也是空气在变？这个问题不在教案里，却是我最想收到的礼物。

下课有孩子追着问：老师下节课还做实验吗？我说做。他回头跟同桌咬耳朵，声音大得全班都听见：我就说科学课不是背书吧。我假装没听见，心里把这句话记下了。

当晚我在备课本上写：演示三分钟，分组二十分钟，讨论十五分钟，比讲四十分钟空气的定义管用得多。兴趣不是老师灌进去的，是水涌进杯子那一瞬，自己从四十双眼睛里冒出来的。我要做的，只是把那六只杯子提前搬上讲台。

The Moment the Candle Stood Up Inside the Cup

In my seventh year of teaching third-grade science, I am more and more convinced of one thing: the fate of a lesson often hides in its first three minutes. This week's topic was air, and I hauled the demonstration equipment onto the podium ahead of time: a shallow tray, half a cup of water, a stub of candle, a box of matches, and six squat glass cups.

The bell had barely rung when I stood the candle in the center of the tray and lit it, the flame flickering before forty pairs of eyes. I asked: what happens to the candle if I put a cup over it? The classroom split into two camps instantly - one side said it goes out, the other said it goes out but couldn't say why. I lowered the glass cup straight down; the candle struggled for two seconds and died. The class chorused an unimpressed oh.

The real trick came next. I switched cups and added more water to the tray before putting this one over. The instant the candle went out, the water in the tray rushed into the cup as if someone had sipped it up in one gulp, the water level climbing in full view. The class went silent for half a second, then exploded: the water climbed up by itself! I lifted the cup high so the back row could see the water line hanging in midair.

Then came group work. Six groups each received a full set and repeated the trick. The room instantly came alive: the crack of matches, the glug of water surging into cups, wow after wow, all blended into one. The boy who normally cannot sit still redid the experiment three times this round, earnestly recording which notch the water reached each time, more focused than in any homework assignment.

I reserved a full fifteen minutes for the discussion afterward. One child said the cup ate the air, so the water came in; another disagreed, saying the air did not shrink - the candle spoiled the air inside. We did not rush to the standard answer; we pored over the book and looked things up together, landing at last on air pressure. The boy raised his hand: then is the mist on winter windows also air changing? That question was not in the lesson plan, yet it was the gift I most wanted to receive.

After class a child ran after me to ask: Teacher, will there be an experiment next class too? I said yes. He whispered to his deskmate loudly enough for the whole class to hear: I told you science class isn't memorizing. I pretended not to hear, and filed the sentence away in my heart.

That evening I wrote in my lesson book: three minutes of demonstration, twenty of group work, fifteen of discussion - far more effective than forty minutes lecturing on the definition of air. Interest is not poured in by the teacher; the moment water surges into the cup, it bubbles up on its own from forty pairs of eyes. All I must do is carry those six cups onto the podium in advance.