小苏打和白醋，把气球吹起来了

十一月十二日 星期三 小雨

今天科学课，林老师推着一辆小推车进教室，车上摆着一排排材料袋。她说今天做气球自己吹起来的实验，材料每组一份：一个透明塑料瓶、半杯白醋、两勺小苏打、一个没吹过的气球。我们组五个人围着桌子看材料，赵一凡把气球拿起来对着嘴就要吹，被林老师一把按住：先别吹，今天不许用嘴。

实验步骤老师写在黑板上：先把白醋倒进瓶子，再把小苏打装进气球，然后把气球口小心地套在瓶口上，最后把气球竖起来，让里面的小苏打倒进瓶子。听起来顺，做起来全是岔子。装小苏打的时候，漏斗太小，一半洒在桌上；套气球的时候，孙磊手笨，气球口撑不开，我们轮流帮他撑，好不容易套上，他手一抖，气球又弹掉，白醋溅出来一点，闻着呛鼻子。

第一次竖气球，小苏打哗地倒进瓶子，瓶里立刻咕嘟咕嘟响，白沫往上涌，可是气球口没套严，气从缝里跑，吱吱地叫，气球只鼓了半个脑袋就蔫了。我们组集体唉了一声。我检查了一下，把气球口往外翻过去扣紧瓶颈，又捏了捏接口。林老师路过看了一眼说，检查是对的，再来。

第二次，我把气球慢慢竖起来，小苏打一点点滑进白醋里。瓶子先是安静，然后从瓶底升起一大团气泡，咕嘟咕嘟越冒越急，白沫涨到瓶脖子。就在这时，气球自己动了，先是鼓起一个包，然后圆滚滚地站直，越胀越大，摸上去硬邦邦的。气球吹起来了！它是我们组五个人一起看着它吹起来的。孙磊喊得最响，隔壁组的人全围过来，连林老师都走过来，站在我们桌边看那个气球，说这组第二次修好了接口，这就是实验。

下课的时候气球还鼓着，我们把它放在讲台边上，它慢慢瘪下去，瓶子里的水一停一停地响。我把今天记进日记：失败的那一次不是白失败的，它教会我们检查接口。还有，气球不用嘴吹也能起来，瓶子里那两个东西见面，就有一口气从它们中间生出来。

Baking Soda and Vinegar Blew Up the Balloon

Wednesday, November 12. Light rain.

In science class today, Ms. Lin pushed a small cart into the room, lined with bags of materials. She said we would do the experiment where a balloon inflates itself, one set per group: a clear plastic bottle, half a cup of white vinegar, two spoons of baking soda, and an uninflated balloon. The five of us gathered around the table to look. Zhao Yifan picked up the balloon and raised it to his mouth to blow, and Ms. Lin caught his hand: not yet, no mouths allowed today.

The steps were on the blackboard: pour the vinegar into the bottle, put the baking soda into the balloon, carefully stretch the balloon's mouth over the bottle's neck, then lift the balloon upright so the powder slides into the bottle. It sounded smooth; doing it was all bumps. The funnel was too small, and half the baking soda spilled on the table. Sun Lei could not stretch the balloon's mouth open, so we took

turns helping him. We finally got it on, his hand slipped, the balloon snapped off, and a splash of vinegar flew out, stinging our noses.

The first time we lifted the balloon, the powder poured in, the bottle began to gurgle, white foam rising, but the seal was not tight. Air hissed out of the gap, and the balloon swelled halfway and then wilted. Our whole group groaned together. I checked the joint, folded the balloon's mouth outward over the neck of the bottle, and pinched it tight. Ms. Lin passed by, took one look, and said: checking is right, do it again.

The second time, I raised the balloon slowly, and the baking soda slid little by little into the vinegar. At first the bottle was quiet, then a great cloud of bubbles rose from the bottom, gurgling faster and faster, the foam climbing to the neck. Just then the balloon moved on its own: first a bump, then it stood up round and fat, growing bigger and bigger, hard when touched. The balloon inflated! Five of us watched it inflate together. Sun Lei shouted the loudest. Groups from next door crowded over, and even Ms. Lin came and stood at our table looking at that balloon. She said this group fixed the seal on the second try, and that is what an experiment is.

At the end of class the balloon was still round. We set it on the edge of the lectern, and it slowly softened, the liquid in the bottle ticking now and then. I wrote today into my diary: the failed attempt was not wasted; it taught us to check the joint. And a balloon can rise without a mouth. When those two things in the bottle meet, a breath of air is born right between them.