葡萄干在我杯子里跳舞

周末的作业是做一个小实验，写观察日记。我翻遍零食袋，找到半袋葡萄干，冰箱里还有爸爸喝剩的半瓶雪碧。做实验的材料就这么凑齐了：两只玻璃杯，雪碧，葡萄干，一根筷子，还有一张我打算用来记时间的草稿纸。妈妈路过厨房，瞟了一眼说，葡萄干泡雪碧，这是什么怪吃法。我说这是实验，不是吃法。

我倒雪碧的时候学着大人的样子，把杯子歪着，让雪碧顺着杯壁下去，这样泡泡少。雪碧倒到大半杯，杯子里全是细泡，往上冒，像下反着走的雨。我挑了七粒最大的葡萄干丢进去。它们沉到杯底，躺平了，一动不动，像七粒小石子在睡觉。我用筷子捅了捅其中一粒，它翻个身，还是不上来。我等了一分钟，两分钟，有点泄气，心想这实验怕不是假的。

就在第三分钟，沉在最边上的那粒葡萄干忽然变了样：它浑身贴满了小泡，像穿了一件毛茸茸的白外套。接着它慢吞吞地立起来，摇摇晃晃往上升，升到杯口，浮在水面上，停了一下，又沉了下去。我屏住气盯着它。它沉到底，歇一会儿，又升上来。上来，下去，再上来，真像在跳舞。我蹲在桌子前，鼻子差点贴上杯子。妈妈被我喊过来，她看了一眼，也睁大了眼睛。

我拿草稿纸记数：两分钟里，那粒葡萄干上去了九次，掉下来九次。为什么？我去问爸爸。爸爸说，雪碧里藏着一种气，叫二氧化碳，它爱往葡萄干皱巴巴的皮上贴，贴多了就把葡萄干托上去；到了水面，泡破了，气跑了，葡萄干就掉下来；掉到底，气又慢慢攒够，就又上去。我听了个半懂，但我记住了一个说法：葡萄干是被泡泡一次次举上去的。

那天晚上我把实验写进作文，结尾写了一句：一杯看着普通的雪碧里，藏着科学。写完我还不甘心，又试了把葡萄干泡进凉白开，它躺着一动不动，一个泡也不贴。我把这个也写进了日记。做实验最好玩的地方，不是知道答案，是你亲眼看见葡萄干跳舞的那一下。

My Raisins Danced Inside the Glass

The weekend homework was to do a small experiment and keep an observation diary. I rummaged through the snack bags and found half a packet of raisins, and the fridge still held half a bottle of Sprite my father had left. That was the whole kit: two glasses, Sprite, raisins, one chopstick, and a scrap of draft paper for timing things. My mother walked past the kitchen, glanced over and said, raisins in Sprite, what a strange way to eat. I said this was an experiment, not a recipe.

When I poured the Sprite I copied the grown-ups: tilt the glass and let the liquid run down the wall so fewer bubbles form. Filled to three-quarters, the glass was full of fine bubbles rising like rain falling upward. I dropped in the seven biggest raisins. They sank to the bottom, lay flat, and did not move, seven little stones asleep. I poked one with the chopstick; it rolled over and stayed down. I waited a minute, two minutes, and started to lose heart, thinking maybe this

experiment was fake.

Then, in the third minute, the raisin nearest the edge suddenly changed: its whole body was plastered with tiny bubbles, as if it had put on a fuzzy white coat. Slowly it stood up, wobbled upward, reached the rim, floated on the surface for a moment, then sank back down. I held my breath and stared. It rested at the bottom, then rose again. Up, down, up again, it was truly dancing. I crouched in front of the table with my nose almost touching the glass. I called my mother over; she took one look and her eyes went wide too.

I tallied on the draft paper: in two minutes that raisin went up nine times and fell nine times. Why? I asked my father. He said Sprite hides a gas called carbon dioxide inside it; the gas likes to cling to the raisin's wrinkled skin, and when enough clings, it lifts the raisin up; at the surface the bubbles burst, the gas escapes, and the raisin falls; back at the bottom the gas gathers again and lifts it once more. I understood about half of it, but I kept one phrase: the raisin was lifted up again and again by bubbles.

That night I wrote the experiment into my composition and ended with one line: an ordinary glass of Sprite hides science inside. Not satisfied, I also tried soaking raisins in cooled boiled water; they lay perfectly still, not one bubble sticking to them. I wrote that into the diary too. The best part of an experiment is not knowing the answer; it is the moment you see the raisins dance with your own eyes.

科学课上我们小组吵了一架

科学课那周，老师布置小组实验：雪碧泡葡萄干，观察葡萄干跳舞。我们四人小组当场分了工——我负责倒雪碧，李雨桐负责放葡萄干，张一凡负责数次数，王多多负责在表格上记。老师说要像真正的科学家那样，每人都有任务，谁也不能闲着。

第一杯是我们最顺利的一次。李雨桐数着数放下去六粒，张一凡盯着杯子报数，一次、两次，王多多的笔在表格上跟着走。我们那杯两分钟跳了十一回，比别组多。老师把我们的表格投影到屏幕上，说这一组数得稳。我们四个互相看了一眼，都憋着笑，心里美滋滋的。

吵起来是在第二杯。张一凡说葡萄干跳舞是因为雪碧甜，王多多说是因为里面有气，两个人谁也说服不了谁，声音越来越大，李雨桐说别吵了，再吵实验做不完。我作为倒雪碧的人提了个办法：再拿两杯，一杯倒凉白开，一杯倒我们自己冲的糖水，都放葡萄干，看哪杯会跳。老师听见了，走过来说了四个字：对比实验。然后她在黑板上画了三个杯子，说科学家说服别人，不靠嗓门，靠这个。

结果很快出来了。凉白开那杯，葡萄干躺着一动不动，一个泡也没有；糖水那杯很甜，可葡

葡干也躺着，只有几粒沾了点小渣；只有雪碧那杯，葡萄干上来下去。张一凡盯着糖水那杯看了很久，自己说：哦，不是甜。王多多在表格底下写结论，写了一半卡住了，问我气泡怎么说才像科学家。我想了半天，说：雪碧里藏的气抱住葡萄干往上送，到水面气跑了，葡萄干掉下来。王多多把这句抄上去，还在后面补了一句我们组的话：不服气就再做一杯。

下课铃响的时候，我们组的三个杯子还摆在桌上，三杯液体里躺着三种结果。老师收表格的时候说，这一组吵架吵得值，因为吵完你们没有动手打，动手做了实验。我把那张表格夹进科学书，它现在有点皱了，但三行数据我到现在都记得：会跳，不会跳，也不会跳。

Our Group Quarreled in Science Class

The week of our science class group experiment, the teacher assigned Sprite-soaked raisins, watching the raisins dance. Our group of four split the jobs on the spot — I poured the Sprite, Li Yutong dropped in the raisins, Zhang Yifan counted the rounds, and Wang Duoduo filled in the table. The teacher said work like real scientists: everyone has a task, nobody gets to idle.

The first glass was our smoothest run. Li Yutong counted out six raisins, Zhang Yifan stared at the glass and called the rounds, one, two, and Wang Duoduo's pen followed along the table. Our glass danced eleven rounds in two minutes, more than the other groups. The teacher projected our table on the screen and said this group counted steadily. The four of us glanced at each other, holding back grins, glowing inside.

The quarrel started over the second glass. Zhang Yifan said the raisins danced because Sprite was sweet; Wang Duoduo said it was the gas inside. Neither could convince the other, their voices rose, and Li Yutong said stop fighting, we will never finish the experiment otherwise. As the official Sprite-pourer, I proposed a plan: get two more glasses, one with cooled boiled water, one with sugar water we mix ourselves, put raisins in all three, and see which one dances. The teacher heard, walked over, and said four words: a control experiment. Then she drew three glasses on the blackboard and said scientists convince people not with loud voices but with this.

The results came quickly. In the plain water the raisins lay perfectly still, not one bubble; in the sugar water, plenty sweet, the raisins also lay still, only a few with a bit of grit on them; only the Sprite glass sent raisins up and down. Zhang Yifan stared at the sugar water for a long time and said by himself: oh, it is not the sweetness. Wang Duoduo wrote the conclusion under the table and got stuck halfway, asking me how to say it about bubbles like a scientist. I thought hard, then said: the gas hidden in Sprite hugs the raisin and carries it up; at the surface the

gas escapes and the raisin falls. Wang Duoduo copied that line and added our group's motto underneath: if you are not convinced, make another glass.

When the bell rang, our three glasses still stood on the table, three results lying in three liquids. As she collected the tables the teacher said this group's quarrel was worth it, because after arguing you did not throw punches — you got to work and ran the test. I tucked that table into my science book. It is a little wrinkled now, but I still remember all three rows of data: danced, did not dance, also did not dance.

我把家里的零食都丢进了雪碧

科学老师布置了雪碧泡葡萄干的实验。我按老师说的做，葡萄干果然跳舞了。可我心里冒出一个老师没讲过的问题：除了葡萄干，还有谁会被雪碧举起来？第二天放学，我把家里的零食柜翻了个底朝天，摆出一排候选：蓝莓干、绿豆、大米、爆米花，还撕了几小片作业纸。我妈看见厨房台面上摆成这样，问我是不是要开饭馆。我说我在挨个面试。

我学着第一次的样子，杯子歪着倒雪碧，一种材料放几粒，单独一杯，免得混在一起说不清。第一个上场的是蓝莓干。它比葡萄干胖，皮也皱，下去以后也裹泡，也往上走，可是它太重了，上去一半又滑下来，在杯底一鼓一鼓，像没跳利索的胖墩儿。第二个是绿豆。绿豆皮光溜溜的，泡贴不住，躺底下一动不动。我拿筷子把它捞出来，用指甲在皮上刮出几道印子再丢回去，这一回它身上挂住泡了，晃晃悠悠上去了半截。我把这个发现写在纸上：皮皱巴巴的才挂得住泡。

大米和碎纸片都太轻，一下去泡还没攒够，就被水面托着不下来了，漂在上面装没事。爆米花最滑稽，下去两秒就软了，散成一团糊，跳舞的事提都不用提。我在表格上挨个画勾画叉：蓝莓干，跳得笨；绿豆，不跳，刮破皮才跳半截；大米，漂着；纸片，漂着；爆米花，出局。写到这儿我看明白了：要跳舞，得皮能挂住泡，身子还得不轻不重，太重跳不动，太轻下不去。

最意外的是放了一晚上没管的那杯葡萄干。第二天早上去看，雪碧没气了，葡萄干全鼓胖了，软软地沉在底，一个也不跳了。我尝了一口那杯雪碧，甜得像糖水，一点不杀口。我把这个也记下来：气用完了，舞就停了。原来泡泡不是无限的，雪碧开了就得赶紧做实验，不然它偷懒。

那张表格我贴在了冰箱上。我妈每天开门拿东西都看一遍，现在她路过零食柜会顺手把雪碧买回来，说别断了货。一个老师布置的实验，我顺着往下问了一个问题，结果家里厨房变成了实验室。科学老师要是看见这张画满勾叉的表格，应该会承认我这个问题问得不坏。

I Dropped Every Snack in the House into Sprite

Our science teacher assigned the Sprite-and-raisin experiment. I did exactly what she said, and the raisins danced. But a question she had never mentioned popped into my head: besides raisins, who else could Sprite lift up? After school the next day I turned the snack cupboard upside down and lined up the candidates: dried blueberries, mung beans, rice, popped corn, and a few torn scraps of homework paper. My mother saw the kitchen counter laid out like that and asked if I was opening a restaurant. I said I was holding interviews, one by one.

I copied the first run: tilt the glass for the Sprite, a few pieces of each material, one glass per material, so nothing gets mixed up and nothing can be explained. The first to try was the dried blueberry. Fatter than a raisin, skin just as wrinkled, it gathered bubbles and started up too — but it was too heavy, slid back down halfway, and puffed up and sank at the bottom like a clumsy dancer who never got the steps right. The second was the mung bean. Its skin was slick, bubbles would not stick, and it lay at the bottom motionless. I fished it out, scraped a few marks into its skin with my nail, and dropped it back. This time the bubbles caught, and it swayed up halfway. I wrote the discovery on paper: only wrinkled skin holds bubbles.

Rice and paper scraps were too light. Before bubbles could gather enough, the surface held them up and they never came down, floating there pretending nothing was happening. The popped corn was the funniest: two seconds in the glass it went soft and dissolved into a mush — dancing completely out of the question. On my table I ticked and crossed each one: blueberry, dances clumsily; mung bean, no, only half-dances once its skin is scratched; rice, floats; paper, floats; popcorn, eliminated. By then I saw the rule: to dance, the skin must hold bubbles, and the body must weigh just right — too heavy to lift, too light to sink.

The biggest surprise came from the raisin glass I left sitting overnight. Next morning the Sprite had gone flat, the raisins swollen plump and soft at the bottom, not one dancing. I tasted that flat Sprite: sweet as sugar water, no tingle at all. I wrote this down too: when the gas runs out, the dance stops. So the bubbles are not endless — once Sprite is opened, run the experiment fast, or it starts slacking off.

I taped that table on the refrigerator. My mother reads it every time she opens the door, and now she grabs Sprite at the shop without being asked, saying don't let us run out. One assigned experiment, one extra question from me, and our kitchen became a laboratory. If my science teacher saw that table of ticks and crosses, she would have to admit my question was not bad at all.