# 我们的缝衣针，认出了北方

十二月八日 星期一 晴转多云

今天科学课，吴老师拎着一个铁盒进来，说今天每组做一只自己的指南针，不许用现成的。铁盒打开，材料一样一样传过来：一根缝衣针，一块条形磁铁，一小片泡沫，一个装了水的浅盆，还有一小截蜡烛。我们组四个人传着看，针细得反光，谁捏着都怕扎手。吴老师在黑板上画了步骤：用磁铁的一极，顺着针尖的方向磨，只能单向磨，磨三十下，然后把针横放在泡沫片上，泡沫片放进水盆，别碰它。

我们组分工：我数数，方苗苗磨针，罗小川放泡沫，何一诺负责把手从盆边拿开，因为他总想扶。方苗苗捏着磁铁在针上蹭，蹭到第十下来回蹭了，我喊停，重来。她嘟囔着说来回蹭不是更匀吗，吴老师听见了，走过来只说了一句：磁体里的队伍要朝一个方向排队，来回蹭，队伍就乱了。方苗苗重新从针尾往针尖蹭，我数到三十，声音都不敢大。

第一次放进水盆，泡沫片歪着，针转了半圈，停停走走，就是不肯指一个方向。我们组四个人围着盆，何一诺的手又伸出去，被我用胳膊肘顶回来。罗小川说是不是针不够磁，我想起磁铁只蹭了一面，就说换另一极再磨三十下。第二次，方苗苗磨的时候我们三个全盯着她的手，一下都不能少。

泡沫片第二次漂进盆里，针慢慢转，像有人在水底下轻轻拨它。转了大半圈，它停了，针尖指着窗户那一边。吴老师拿出手机指南针放在盆旁边比对，针尖和手机上的北差不了几度。我们组先是没出声，四个人围着水盆，看那根针稳稳地钉在北方。然后不知道谁先喊了一声，四个人一起跳，盆里的水被桌子震得晃，针又转了，我们又屏住气等它指回去。

下课好多人围着我们的盆看。吴老师说，那根针里排好了队，所以它认得北。我把今天写进日记，还写了一句我自己的：我们组第一次也是来回蹭乱了队，跟平时讨论题各说各的差不多。第二次都听一个方向，针就指北了。原来排队这件事，针要排，人也要排。

# Our Sewing Needle Found North

Monday, December 8. Sunny turning cloudy.

In science class today Ms. Wu came in carrying a tin box and announced that each group would make its own compass, with no store-bought ones allowed. The box opened and materials passed down the rows: one sewing needle, one bar magnet, a small raft of foam, a shallow basin of water, and a stub of candle. The four of us in my group passed them around. The needle was thin and flashing, and everyone who held it feared the prick. On the blackboard Ms. Wu drew the steps: with one pole of the magnet, stroke the needle from tail toward point, in one direction only, thirty strokes; then lay the needle across the foam raft and set the raft in the water, and do not touch it.

We split the work: I counted, Fang Miaomiao stroked the needle, Luo Xiaochuan

placed the raft, and He Yinuo was in charge of keeping his hands off the basin, because he always wanted to steady it. Fang Miaomiao rubbed the magnet along the needle, and at stroke ten she started going back and forth. I called stop and we restarted. She muttered, is not back and forth more even? Ms. Wu heard her, walked over, and said one thing: inside a magnet the little troops must all face one direction; rub back and forth and the ranks fall into chaos. Fang Miaomiao started again from tail to point, and I counted to thirty, barely above a whisper.

The first time the raft went into the basin, it sat crooked, the needle spun halfway around, stopping and starting, refusing to point anywhere. The four of us circled the basin. He Yinuo's hand drifted out again, and I nudged it back with my elbow. Luo Xiaochuan said maybe the needle was not magnetic enough. I remembered we had used only one pole, so I suggested switching poles and stroking thirty more. The second time, all three of us watched Fang Miaomiao's hand while she stroked, not allowing a single stroke to go missing.

The raft floated in for the second time. The needle turned slowly, as if someone under the water were gently turning it. After most of a circle, it stopped, its point aimed at the window side. Ms. Wu held her phone compass next to the basin and compared: our needle's point was within a few degrees of north on the screen. For a moment our group made no sound at all, four of us around the basin, watching that needle stand firm in the north. Then someone shouted first, and all four of us jumped, the water in the basin rippling from the shaking table, the needle spinning again, and we held our breath once more waiting for it to find north a second time.

After class a crowd gathered around our basin. Ms. Wu said the troops inside that needle had fallen into rank, so it knows north. I wrote today into my diary and added one line of my own: our first attempt failed because back-and-forth rubbing broke the ranks, which is a lot like how we usually argue in group discussions, everyone talking at once. The second time we all followed one direction, and the needle pointed north. So falling into rank is something needles must learn, and people too.

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