科学课上，我陪学生蹲了十分钟

上周的科学课，我带六个孩子去校园东墙外面观察植物。路线是我提前走过一遍的，二十分钟走完，回教室画图，安排得刚刚好。出发不到五分钟，计划就乱了。

队伍里的小宇落在最后，蹲在路边不动。我回去催他，他抬起头喊我：老师你来看，这条蚂蚁队伍会给自己修路！我本来要说快跟上，话到嘴边咽回去了。我也蹲下来。

他说得没错。墙根那条线上，有几只蚂蚁在往一个坑里搬土粒，坑不大，可队伍走到那儿会绕，绕一次少几只。小宇盯着看了半天，忽然问我：老师，它们是谁教谁的？没有人教它们吧？那它们怎么知道该往坑里填土？这个问题问得好。我蹲在那儿想了十几秒，老实说：我不知道确切答案，科学家也还在研究。我知道的是，它们靠触角和气味互相传信。你猜的修路，说不定就是后面的蚂蚁踩前面的脚印，越踩越顺。

小宇说：那我可以做个实验吗？下次我在这儿放一张纸，看它们还绕不绕。我说可以，这是个好主意，别伤害它们，观察完把纸拿走。

那十分钟，六个孩子全蹲在那儿，植物路线没走完。回教室以后，我没有补进度，而是把小宇的问题写在黑板上：蚂蚁会修路吗？全班讨论了一节课。后来我们真的做了一张观察记录表，日期、地点、天气、队伍方向、发现的问题，六个人一人填一行。小宇那一行写：蚂蚁在填坑，像在修路，下次放纸试试。

那张表我贴在教室后墙，贴了半个学期，陆陆续续有别的班的孩子往上添行。有个平时最坐不住的孩子写了一行：蚂蚁排队的间隔是一样的，我用尺子量了。

当老师这些年，我越来越相信一件事：好奇心不是教出来的，是护出来的。孩子蹲在路边那一刻，是他在主动靠近这个世界，大人最不该做的就是拽他起来赶路。十分钟换一节课的讨论，换一张贴了半学期的记录表，太值了。那天的植物路线我后来补上了，可蚂蚁那十分钟，是我那个学期上得最好的一节课。

In Science Class, I Squatted With My Students for Ten Minutes

Last week in science class, I took six children outside the east wall of the campus to observe plants. I had walked the route in advance: twenty minutes out, back to the classroom to draw, timed just right. Less than five minutes after we set off, the plan fell apart.

Xiao Yu at the back of the line squatted down by the road and would not move. I went back to urge him on, and he looked up and called me: Teacher, come look — this line of ants is building its own road! I was about to say hurry up, and swallowed the words at my lips. I squatted down too.

He was right. On the line at the foot of the wall, several ants were carrying

grains of soil into a small pit. The pit was not big, but the column detoured when it reached there, and with each detour a few ants dropped off. Xiao Yu watched for a long while, then suddenly asked me: Teacher, who taught them? Nobody taught them, right? Then how do they know to fill the pit with soil? That is a good question. I squatted there thinking for ten seconds, then answered honestly: I do not know the exact answer; scientists are still studying it. What I do know is that they pass messages to each other with their antennae and scent. Your road-building, maybe it is just the ants behind stepping in the footprints of those ahead, and the more they step, the smoother the path.

Xiao Yu said: can I do an experiment then? Next time I will put a sheet of paper here and see whether they still detour. I said yes, that is a good idea — do not hurt them, and take the paper away when you are done observing.

For those ten minutes, all six children squatted there. The plant route went unfinished. Back in the classroom, instead of catching up on the schedule, I wrote the question of Xiao Yu on the blackboard: do ants build roads? The whole class discussed it for a period. Later we really made an observation record sheet — date, place, weather, direction of the line, questions found — and each of the six filled one row. the row of Xiao Yu read: the ants are filling the pit, like building a road; next time put down paper and test it.

I pasted that sheet on the back wall of the classroom for half a term, and children from other classes kept adding rows to it. One of the most fidgety boys in school wrote one row: the gaps between ants in line are the same — I measured them with a ruler.

In all these years of teaching, I believe one thing more and more: curiosity is not taught, it is protected. The moment a child squats by the road is the moment he is moving toward the world on his own initiative, and the last thing an adult should do is haul him up and hurry him along. Ten minutes traded for a period of discussion and a record sheet that stayed on the wall half a term — a bargain. I made up the plant route later, but those ten minutes with the ants were the best lesson I taught that term.