粉笔线拦不住它们

敬爱的老师、亲爱的同学们：大家好！我要分享一个我在花坛边上做的小实验，还有这个实验带给我的一个大发现。

那天我在花坛边看蚂蚁搬饼干渣，看着看着，心里冒出一个问题：它们为什么走这条线，不走旁边那条？我猜它们是用眼睛认路的。于是我捡起一截粉笔，在队伍中间画了一道白线。我想，这下它们该迷路了。

结果让我吃了一惊。最前面的蚂蚁走到白线跟前，停了一下，触角朝线上点了点，然后沿着线走了两步，从线的另一头绕了出去。后面的蚂蚁跟着它绕，整条队伍拐了个弯，像河水绕过一块石头。粉笔线一点都没拦住它们。

我不甘心，回家又拿来妈妈炒菜用的粉末，在队伍跟前撒了一圈。这一回，蚂蚁真的乱了。它们原地打转，触角碰来碰去，有好几只掉头往回跑。可是过了不到十分钟，队伍从粉末圈的外侧重新排起来了，还绕出一条新的线，比原来那条离粉末更远。

晚上我去翻书，才知道蚂蚁不是靠眼睛认路的。它们走路时会留下一种气味，后面的蚂蚁闻着气味走。粉笔盖不住气味，粉末只能挡一阵子。我把这个发现写进观察日记，还在旁边画了那条拐弯的新路线。

接下来的一个星期，我天天去看那条新线。我发现新线越走越直，蚂蚁把绕远的路一点点改短了。它们不会说话，也不会写字，可是它们会把走对的路留下来，把走不通的路忘掉。这多像我们解题：一条路走不通，换一条接着走。

这个实验让我明白，发现不是等来的，是试出来的。我先猜，再画线，再撒粉末，再查书，再看一个星期。每一步都小小的，凑在一起，才换来了那个让我跳起来的道理。

同学们，你们的口袋里也可以有一截粉笔。这周找一个花坛，问蚂蚁一个问题，看它怎么回答你。记住，别按死它们，也别把水倒进洞里。我们是去看，不是去闹。观察日记的第一页，就写你心里冒出来的那个问题。

我的演讲完了，谢谢大家！

A Chalk Line Cannot Stop Them

Dear teachers and dear classmates, hello! I want to share a small experiment I did beside a flower bed, and the big discovery it brought me.

That day I was watching ants carry crumbs of biscuit at the flower bed, and a question popped into my head: why do they walk along this line and not the one next to it? I guessed they found their way with their eyes. So I picked up a piece of chalk and drew a white line across the middle of the queue. I thought they would surely get lost now.

The result surprised me. The ant at the front reached the white line, paused, tapped the line lightly with its feelers, then walked two steps along the line and went around at its other end. The ants behind followed it around, and the whole queue made a turn, like a river flowing around a stone. The chalk line stopped nothing.

Not willing to accept that, I went home and brought some cooking powder from our kitchen and sprinkled a ring of it in front of the queue. This time the ants really got confused. They spun in place, their feelers knocking against each other, and several turned back. But in less than ten minutes, the queue formed again outside the ring of powder and opened a new line, one that kept even farther from the powder.

That evening I looked it up in a book and learned that ants do not find their way by sight. As they walk, they leave behind a scent, and the ants behind follow that scent. Chalk cannot cover the scent, and powder can only block it for a while. I wrote this discovery in my observation diary and drew the new turning route beside it.

For the rest of that week, I went to watch the new line every day. I found the new line growing straighter and straighter, as the ants shortened the detour little by little. They cannot speak and cannot write, yet they keep the roads that work and forget the roads that do not. That is just like solving a problem: when one way does not work, take another and keep going.

This experiment taught me that discoveries are not waited for; they are tried out. I guessed first, then drew the line, then sprinkled the powder, then checked the book, then watched for a week. Each step was small, but together they earned the lesson that made me jump.

Classmates, there can be a piece of chalk in your pocket too. This week, find a flower bed, ask the ants one question, and see how they answer. Remember not to crush them and not to pour water into their hole. We go to watch, not to make trouble. On the first page of your observation diary, write the question that popped into your head.

That is all. Thank you all!