# 彩虹住进了我的杯子

十一月三日 星期三 多云转晴

今天放学路上我就在想实验的事，因为科学书上看到一个彩虹牛奶的实验，我想今晚就做。一回家写完作业，我就开始准备材料：一盒全脂牛奶，盘子要平的那种，红黄蓝三瓶食用色素，几根棉签，还有一小瓶洗洁精。我把东西一样一样摆上桌，数了一遍，齐了，就开工。

我先往盘子里倒牛奶，倒得小心翼翼，生怕洒出来挨说。牛奶铺了盘底一层，白白的，平平的，什么动静都没有。我在牛奶上滴色素，红的三滴，黄的三滴，蓝的三滴，它们安安静静待在原地，像三朵小云彩落错了地方，掉进了白棉花里。这时候什么都不会发生，我有点紧张，手心都出汗了。

关键的一步来了。我拿棉签，一头蘸了一点点洗洁精，屏住呼吸，把棉签轻轻点进牛奶正中间。就一下。颜色轰的一下炸开了！红的黄的蓝的往四边跑，跑着跑着又卷起来，转成旋涡，一个叠一个，盘子里像刮起了彩色的风。我啊地叫出声，赶紧又点第二下、第三下，颜色就跟着棉签跑，我点到哪儿它们追到哪儿。我玩了好多下，盘子变成了一整片会动的彩虹。

我跑去客厅拉妈妈，她正叠衣服，被我拽过来，低头一看，咦了一声。我说妈妈你看，颜色会跑！妈妈问为什么呀。我说，牛奶表面本来有一层紧紧的、手拉着手的东西，洗洁精一来，把它们推开了，它们一跑，就带着颜色一起搬家了。这是我今天从书上查到的词，叫表面张力。妈妈笑着说，你这是变魔术吧。我说不是魔术，是实验，魔术是骗人的，实验是真的。

后来我把盘子端到窗台上看，彩虹还在慢慢转。我想到一件事：牛奶白白平平的时候，什么故事都没有；点一下，故事就全跑出来了。原来安静的东西里面藏着这么多动静，就差一小点洗洁精。

今天真好玩。我要把这个实验留着，下个月科学课上表演给全班看。

# A Rainbow Moved Into My Cup

Wednesday, November 3. Cloudy turning sunny.

On my way home from school I was already thinking about experiments, because in my science book I saw one called rainbow milk, and I decided to do it tonight. As soon as I got home and finished my homework, I started getting the materials ready: a carton of whole milk, a plate with a flat bottom, three bottles of food coloring in red, yellow and blue, a few cotton swabs, and a small bottle of dish soap. I laid everything out one by one, counted them, all present, and got to work.

First I poured milk into the plate, very carefully, afraid of spilling and getting scolded. The milk covered the bottom in a white, flat layer, with no movement at all. Then I dropped in the coloring: three drops red, three drops yellow, three drops blue. They sat quietly where they landed, like three little clouds that fell

into white cotton by mistake. Nothing happened yet, and I got a little nervous, my palms even sweaty.

Then came the key step. I took a cotton swab, dipped one end in a tiny bit of dish soap, held my breath, and touched it gently to the center of the milk. Just once. The colors exploded outward! Red, yellow and blue rushed to the edges, then curled around into whirlpools, one on top of another, as if a colored wind were blowing across the plate. I shouted out loud, then touched the milk a second time, a third, and the colors chased the swab wherever I pointed. I did it many times, and the plate became one moving rainbow.

I ran to the living room and pulled Mom. She was folding laundry and got dragged over. She looked down and gasped. I said, Mom look, the colors are running! She asked why. I said, the surface of milk is like a tight skin where everything holds hands, and when dish soap comes along it pushes them apart, and as they run they carry the colors with them, like a moving day. That is the word I looked up today: surface tension. Mom laughed and said it looks like magic. I said it is not magic, it is an experiment. Magic tricks people; experiments are real.

Later I carried the plate to the windowsill, and the rainbow was still slowly turning. I thought of something: when the milk was white and flat, there was no story at all; one touch, and the whole story ran out. So much movement hides inside quiet things, waiting for just a little dish soap.

Today was truly fun. I am saving this experiment to perform for the whole class at science next month.