

The Lighthouse Lemonade Mystery

Everybody knows what made the swim team sick. Everybody is wrong.

On Saturday, the Cliffside Swim Team held their summer meet at Lighthouse Beach. By Sunday night, **9 of the 20 swimmers were sick**; stomach aches, the works. Parents were furious. And everyone pointed at the same thing: the **lemonade stand** by the pier, where most of the kids bought a drink after racing. "It's the lemonade," said one mom on the group chat. "Half the team drank it and half the team is sick." The stand was shut down by Monday morning.

But Coach Rivera wasn't so sure. Two of the sickest kids, Theo and Priya, never bought lemonade at all; they brought their own water bottles. And a few kids who did drink the lemonade felt totally fine.

So the coach did something simple. She made a chart of who got sick, who drank the lemonade, and who swam near the rocks at the north end of the beach, where a pipe had been quietly leaking all week.

● THE EVIDENCE

COACH RIVERA'S NOTEBOOK — 10 SWIMMERS

SWIMMER	LEMONADE?	SWAM BY NORTH ROCKS?	GOT SICK?
Theo	no	yes	SICK
Priya	no	yes	SICK
Mara	yes	yes	SICK
Jonah	yes	no	fine
Liv	yes	no	fine
Dev	no	no	fine
Sam	yes	yes	SICK
Bea	yes	no	fine
Quinn	no	yes	SICK
Otis	yes	yes	SICK

"Don't just count the sick kids. Look at the kids who drank lemonade and didn't get sick. Then look at what ALL the sick kids have in common." (Coach R.)

● A DETECTIVE'S TRICK

When something looks guilty, ask: **"Is there a third thing that explains both?"** The lemonade looked guilty because lots of kids drank it. But popular isn't the same as guilty. The real cause was hiding underneath, and it took a chart, not a hunch, to see it.

Real scientists fall for this trap all the time. Spotting it is a superpower.

Turn the page →

You've read the case. Now you're the detective. Flip to do the work.

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Your Turn, Detective

No right-or-wrong rush. Think on paper. You can change your mind; good detectives do.

1. Before you study the chart — what's your first guess? What made the swimmers sick?

How sure are you? 0 0 0 0 0 (1 = just a hunch · 5 = totally sure)

2. Find the swimmers who drank lemonade but felt **fine**. Write their names:

3. What do **all 6 sick swimmers** have in common? (Look hard.)

4. So what really made the team sick, and why did the lemonade look guilty?

● THE REAL QUESTION

What made you change your mind from your first guess? What did you notice about how you think?

Liked being the detective?

This is a taste of what we do all summer: bigger mysteries, messier clues, real data to crack. No textbook worksheets, no memorizing. Just thinking.

