

# DR. JOHN SNOW

## SPARKWORKS

Think through anything.

### THE MAN WHO SOLVED A DEADLY MYSTERY



- ✓ It's 1854. A cholera outbreak killed hundreds in London in ten days.
- ✓ Everyone blamed "bad air." Dr. John Snow didn't.
- ✓ He used observation, logic, and the process of elimination to find the truth.
- ✓ He didn't find the answer—he eliminated everything that wasn't.



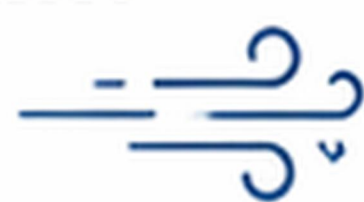
## EUREKA MOMENT

When finding the answer is hard, ruling out what **ISN'T** correct is often faster.

## TEST EVERY IDEA. CROSS THEM OFF.

Dr. Snow looked at every possible cause—and carefully **checked the facts**.

### 1 BAD AIR?



**What people believed:**

Bad smells (miasma) in the air cause disease.



**Dr. Snow's test:**

One street just like the others (nearly) had the same air—but almost no one got sick.

**NOT THE CAUSE**

### 2 DIRTY STREETS OR HOMES?



**What people believed:**

Filth on the ground or in homes made people sick.



**Dr. Snow's test:**

Some clean areas had many deaths, and some very dirty areas had few or none.

**NOT THE CAUSE**

### 3 CONTAMINATED FOOD?



**What people believed:**

Everyone ate something bad that made them sick.



**Dr. Snow's test:**

The people who died had eaten many different foods. There was nothing in common.

**NOT THE CAUSE**

### 4 PERSON-TO-PERSON SPREAD?



**What people believed:**

People were catching cholera from other people.



**Dr. Snow's test:**

Workers at a nearby brewery drank only beer (made from boiled water). None got sick.

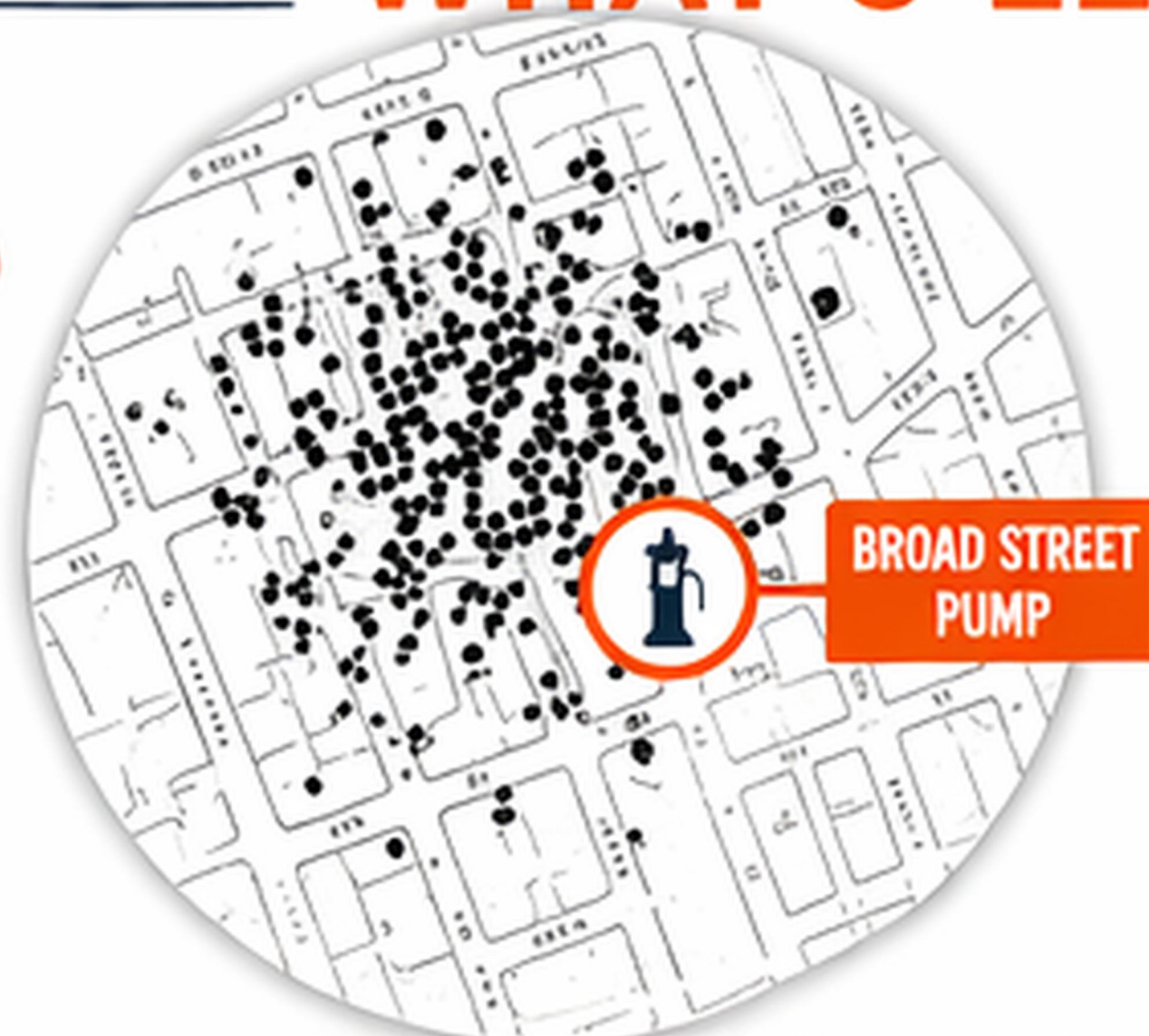
**NOT THE CAUSE**

IF IT'S NOT THE AIR, NOT THE DIRT, NOT THE FOOD, AND NOT OTHER PEOPLE....

## WHAT'S LEFT?

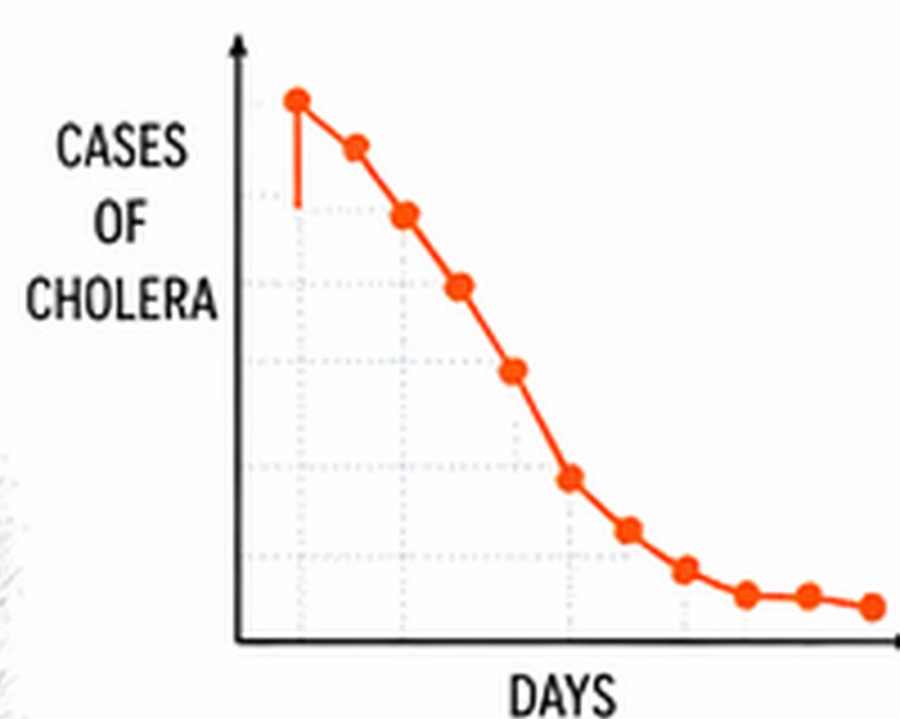
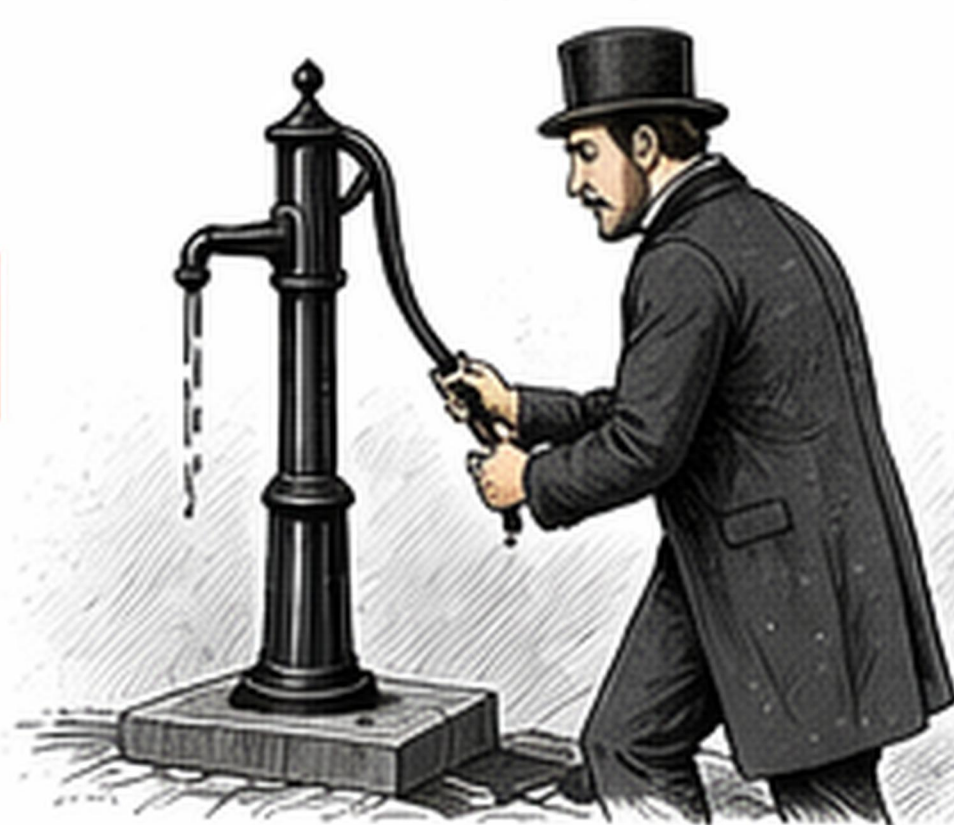
### THE ANSWER: THE WATER PUMP

- ✓ Dr. Snow mapped every death.
- ✓ The sick people were clustered around the Broad Street pump.
- ✓ People who drank that water were getting sick—no matter where they lived.



Dr. Snow convinced officials to remove the pump handle.

The outbreak stopped. Lives were saved.



**SNOW DIDN'T GUESS. HE USED EVIDENCE. HE ELIMINATED. HE SOLVED IT.**



OBSERVE



GATHER FACTS



THINK CRITICALLY



FIND THE TRUTH

**YOU CAN BE A PROBLEM SOLVER TOO!**