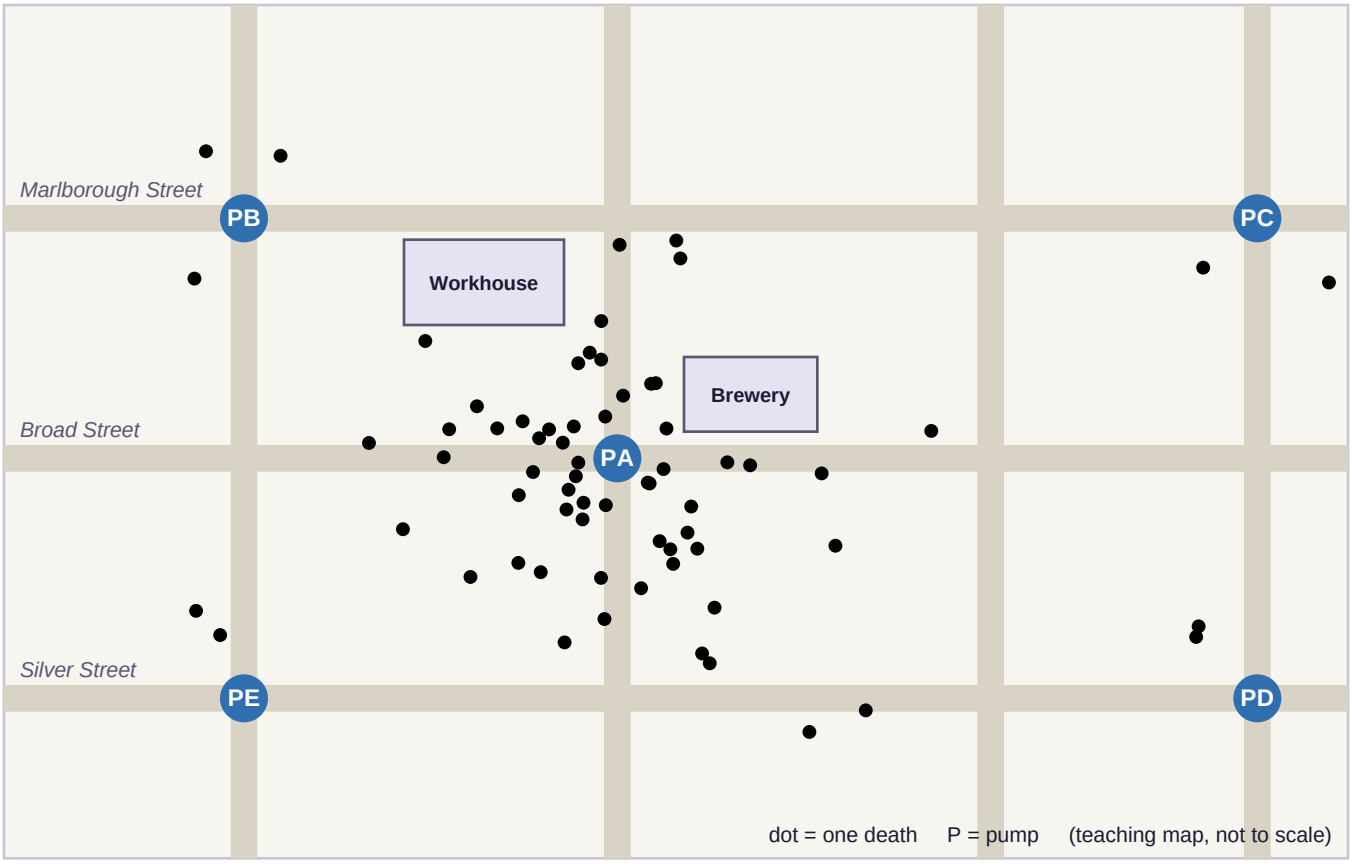
Find the Source

Name _____

John Snow and the Broad Street pump, 1854 · ages 11–16 · about 50 minutes

Cholera broke out in Soho, London, at the end of August 1854. Each dot is one death. Each P is a public water pump. This is a simplified teaching map, not to scale: it follows the pattern Snow found, not his exact data.



1. Count the deaths nearest each pump

Pump A	Pump B	Pump C	Pump D	Pump E

2. Which pump is the likely source? What is your evidence?

3. The workhouse had about 535 people and its own well. The brewery's 70 workers drank beer or water from the brewery's own well. What do these two places tell you?

Map is a simplified teaching map. Sources: UCLA John Snow site; Snow's own account (MSU John Snow Archive).

Find the Source: part 2

Name _____

The water companies of south London, 1854

Two companies piped water from the River Thames to south London. Lambeth had moved its intake upriver, away from the sewage. Southwark and Vauxhall still drew water from a polluted stretch. Snow compared cholera deaths in the houses each company supplied.

Water company	Cholera deaths per 10,000 houses
Southwark and Vauxhall	about 315
Lambeth	about 37

4. How many times higher was the death rate for Southwark and Vauxhall customers? Show your working.

5. Why was this comparison strong evidence, even though Snow could not see what was in the water?

6. The pump handle was removed on 8 September 1854, when deaths were already falling. Was removing it still worth doing? Why?

7. Snow found the source. He did not clean the water. What is the difference, and what would a town need to do next?

Teacher notes

Q1–2: most deaths cluster round Pump A (Broad Street). Q3: people who did not drink the Broad Street water were largely spared. Q4: about 8.5 times.

Q6: Rev. Henry Whitehead argued removal prevented a second wave; the father of the likely first case fell ill the day the handle came off.

Q7: disinfecting a town's water with chlorine came later (Maidstone 1897, Lincoln 1905). For the story of chlorine and clean water, see The Cielle Stories at superelements.com.

Sources: UCLA John Snow site; Science Friday; London Museum; MSU John Snow Archive.