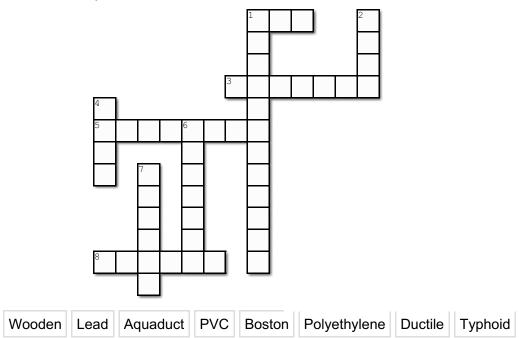
Water Pipes, Then and Now

Complete the crossword below from clues on the back



Across

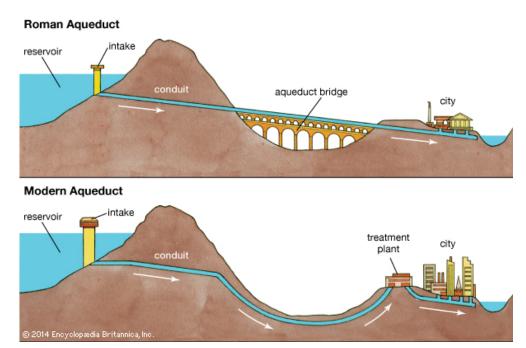
1. This material was invented in 1838.

Cast

- 3. Untreated water can transmit this disease.
- 5. Romans used this to deliver water.
- **8.** In late 1700s, America used trees to make this type of water pipe.

Down

- **1.** America started installing this type of water service material in 1955.
- **2.** The Latin for this word is plumbum.
- **4.** France was the first county to use this type of iron pipe.
- 6. This type of iron pipe was created in 1948.
- **7.** Americas first water treatment plant was built here in 1652.





Example of pipe installation in early 1900's



Steel pipe circa 1800



-Mayan water channels date back to 800 BC.

- -Harappa, a Pakistan city has some of the oldest water and wastewater systems, dating back to 3000 BC. By 2500 BC almost all houses had drinking water access and flushing toilets.
- -The first Roman <u>aqueduct</u> (image on front) was built in 312 BC to supply a water fountain at the city's cattle market, carrying water over 10 miles.
- -Latin for lead is plumbum
- -The oldest <u>cast</u> iron water pipe was installed in 1623 in France. That pipe is still in use today.
- -America's first municipal water treatment plant was in <u>Boston</u>, built 1652. Sioux Falls first water treatment plant was built in 1884.
- -Logs were used for water distribution in England close to 500 years ago. US cities began using hollowed logs and wooden pipe in the late 1700s to early 1800's.
- -Cement-mortar lined cast iron pipe became a standard in 1939, in all American iron pipes.
- -<u>Ductile</u> iron pipe was developed in 1948 and made from cast iron.
- -PE pipe, or polyethylene, was invented in 1953
- -PVC pipe, or polyvinyl chloride was invented 1838. America started installation in 1955, for residential water pipe usage.
- -Galvanized service pipe was popular before the 1960's. It was used as an alternative to lead service pipe.
- -Untreated water can transmit diseases such as cholera and typhoid.