Match the words with their meaning:

Evidence	based on or characterized by the methods and principles of science.
scientific	a disorder of structure or function in a human, animal, or plant, especially one that has a known cause and a distinctive group of symptoms, signs, or anatomical changes
Disease	the available body of facts or information indicating whether a belief or proposition is true or valid.
experiment	a supposition or a system of ideas intended to explain something, especially one based on general principles independent of the thing to be explained.
Cholera	an infectious disease that causes severe watery diarrhea, which can lead to dehydration and even death if untreated. It is caused by eating food or drinking water contaminated with a bacterium called Vibrio cholerae.
Theory	a scientific procedure undertaken to make a discovery, test a hypothesis, or demonstrate a known factt.

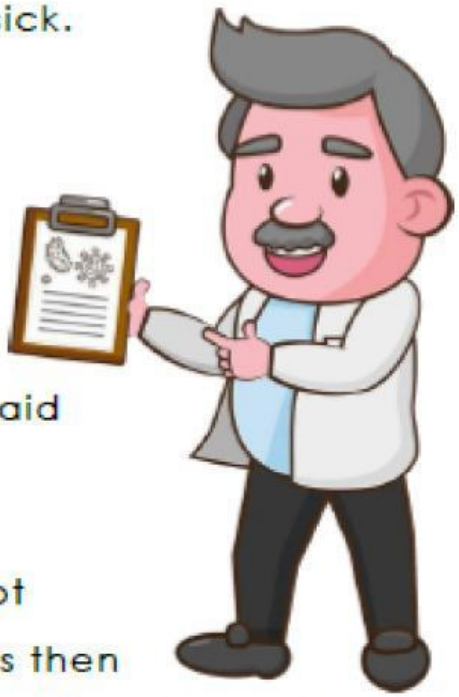
The Doctor Who Saved London

In the city of London about 150 years ago, many people started to get very sick. The sickness they had was called 'cholera'. The disease caused panic among Londoners because nobody knew how to prevent it, or how to cure it.

Lots of doctors tried to figure out how to prevent people from getting cholera. Most doctors thought that people got cholera from breathing in polluted air. They told their patients to open their windows and breathe in fresh air as much as possible. However, this advice did not seem to work as more and more people contracted the disease.

Doctors also struggled to help the patients who already had cholera. Some doctors told their patients to drink lots of water, but that did not help. Some told their patients to take certain medicines, but those did not help, either. The doctors did not know what to do.

John Snow was a doctor and scientist who had a different idea. He thought that cholera might have been spreading through the water that people were drinking. Maybe polluted water was making everyone sick.



At first, other doctors and scientists disregarded Doctor Snow's idea. They believed that cholera was spread through the air and that water was not the problem. Nobody paid much attention to Dr. Snow.

When scientists have an idea that is not proven, it is called a 'theory'. Scientists then create experiments to test whether their theories are true or not. Dr. Snow developed a plan to test his theory about polluted water causing cholera.

Dr. Snow went to different neighborhoods in London and tested their water. He also counted the number of sick people in each neighborhood. It was just as he had thought! The neighborhoods with the cleanest water had the fewest sick people. The places with the dirtiest water had the greatest number of sick people. This proved his theory that cholera was spread through dirty water.

Dr. Snow showed the results of his study to the mayor of London and the other doctors. They examined the evidence and realized that Dr. Snow was right.

All over London, people stopped drinking water that might be polluted. Almost immediately, people stopped getting sick, and the whole city was overjoyed. Doctors knew how to stop cholera now. All it took was clean water.

Thanks to Dr. John Snow, we also know how to stop many other sicknesses that can be spread through dirty water. Cities are now designed to make sure everyone has a supply of clean water.

We would not know about the risks of dirty water if it were not for Dr. John Snow's scientific training, hard work and discovery. Dr. Snow may not be as famous as Batman or Wonder Woman, but he is a hero.

The Doctor Who Saved London (exercises)

1. **Answer these questions:**

   a. What is the name of the sickness that people were getting?

   _____

   b. What is the name of the doctor who helped stop cholera?

   _____

   c. In what city were people getting sick with cholera?

   _____

2. **Pick the correct answer:**

   Why were people getting sick with cholera?

   a. They were eating dirty food.
   b. They were drinking dirty water.
   c. They were not taking enough baths.

How did most doctors (but not Dr. John Snow) first think that cholera was spread?

a. Through breathing in polluted air.
b. Through not changing your dirty socks often enough.
c. Through petting stray cats and dogs.

Was Dr. John Snow's discovery important?

a. No; he only helped a few people.
b. No; it is not important to drink clean water.
c. Yes; now all doctors know how important clean water is to being healthy.

3. Fill in the blanks.

theory	experiments	discoveries

When a scientist has an idea which is not proven, it is called a _____. In order to figure out if a theory is correct, a scientist will perform _____. Theories and experiments can lead to important _____.