

Professor Pasteur

After graduating, Pasteur worked as an assistant to one of his teachers. A couple of years later, he became a professor at a university. He taught chemistry. There, he continued to study crystals. He received many honors for his work.

Not long after becoming a professor, Pasteur met Marie Laurent (luh-RAWN). She was the daughter of a university official. Pasteur fell in love with her the moment he saw her.

He wrote to her father. He asked for her hand in marriage. Her father gave his permission. The two were married for 46 years and had five children. Tragically, three of their daughters died of **typhoid fever** while they were young.

Late for an Important Date!

On the day before Pasteur's wedding, he went to his lab to work. He got so involved that his friend had to remind him to go to the church the next morning!

← Louis and Marie Pasteur

Pasteur worked all the time, but it is said that he and his wife had a happy marriage. She knew how much he loved science. She understood his need to work hard. In the evenings, they worked together. He dictated his notes to her.

Legion of Honor

The Legion of Honor medal is an award given to people who provide a great service to France. Pasteur won this award.



Afraid of Germs

Pasteur knew that germs spread easily. He never shook people's hands. He was afraid of germs. He would not even shake the hands of kings and queens.

← This is Strasbourg, France, where Pasteur taught and first met his wife.





↑ Louis Pasteur in his laboratory

Focus on Fermentation

Pasteur moved to the University of Lille. There he became dean of sciences. He was only 32 years old. Lille was a city full of industry. Pasteur thought the science he taught should be useful. He wanted people to be able to use it in everyday life.

The father of one of Pasteur's students made alcohol. He was having problems with his product. So he came to Pasteur for help. He made alcohol from beet juice. He used yeast to

change the sugar in the juice into alcohol. This process is called **fermentation**. The problem was that the alcohol he made was turning bad.

Fermentation became the focus of Pasteur's research. He studied the alcohol. Then he began studying milk. He found that there was yeast in both. Yeast is a very small life form that can grow in food. People used some yeasts in fermentation, but they did not know much about it.



← yeast



bacteria →

The Work of Microorganisms

Pasteur came up with a new **theory**. He presented it to others. It was a major advance in science. He said that **microorganisms** cause fermentation. Microorganisms are living things. They are too small to be seen with the human eye. Two common types are yeast and bacteria. They can be seen with a microscope. Pasteur also wrote that certain types of microorganisms cause certain kinds of fermentation. Yeast causes alcohol to ferment. A different microorganism would produce something else. That is why some of the living things helped to change sugar to alcohol. Others were ruining it.