



Meet Dino the Dairymen

**GREAT CREATION SCIENTISTS:
LOUIS PASTEUR (1822-1895)**

Name _____

Directions: Read the passage and then answer the following questions.

1. Where and when was Louis Pasteur born?
Louis Pasteur was born December 27, 1822 in Dole, France
2. What was the first degree Louis Pasteur received, from where, and when?
In 1842 Louis Pasteur received a Bachelor of Science degree at the Royal College in Besancon.
3. Louis Pasteur attended what school in 1845 and received what degree?
He attended Ecole Normale and received his Masters of Science degree.
4. What problem did Louis Pasteur investigate that baffled even the greatest chemists of that time? What did he conclude?
Louis Pasteur investigated the structure of tartrate and paratartrate crystals and explained the differences between them. He determined that there was actually two different types of paratartrate crystals. That one had simply been the mirror image of the other.
5. How did Louis Pasteur establish a new branch of science called microbiology?
Pasteur was studying fermentation and that fermentation would only take place if the correct type of microbes were present.
6. Explain spontaneous generation and how it was disproven.
Spontaneous generation is the idea that small animals such as maggots and rodents came to life from non-living matter such as rotting meat. Italian biologist who covered the meat to prevent maggots disproved it. Pasteur disproved it by boiling broth thus killing the microbes in the broth and preventing microbes from the air to enter the broth.
7. Has there been an observable case of spontaneous generation?
No, there has not been an observable case of spontaneous generation.
8. Explain how Louis Pasteur discovered a way to prevent milk from spoiling? Was this his original goal?
No, Pasteur's main goal was working on ways to preserve wine without changing its flavor. He discovered the same procedure that preserved wine also prevented milk from souring.

9. How do you feel about the fact Louis Pasteur chose to make his discovery of Pasteurization freely available so that all could benefit from it?
Opinion piece
10. How did Louis Pasteur help French silk farmers during the diseased eggs crisis?
Louis Pasteur helped French silk farmers by showing them how to use a microscope. With the microscope they could detect diseased eggs and destroy them. The eggs were destroyed and the disease was eliminated.
11. What award did the French government give to Louis Pasteur?
The French government awarded Louis Pasteur with the highest award possible, the Legion of Honour.
12. How is rabies contracted?
Being bit by an infected animal, usually a dog or wolf contracts rabies.
13. When is the vaccine for rabies given? Who needs to be treated for rabies?
The vaccine for rabies is only given after the bite has occurred. Only those individuals who have been bitten by a rabid animal need to be treated.
14. What event took place that allowed Louis Pasteur to test his vaccine on a human. Was the vaccine successful?
A rabid dog had bitten a boy in 1885. He was brought to Louis Pasteur where he treated him with the rabies vaccine for several weeks. The boy survived and the vaccine was a success.
15. When was the Pasteur institute established? What do they continue to do there?
The Pasteur institute was established in 1888, they continue the fight against diseases.