

**The
Michelson Morley
Experiment**

Answer the following Questions.

1. What was the purpose of the Michelson Morley Experiment?
2. Where was this experiment done?
3. In 1887 what was the view held by many of the world's physicists?
4. Who came up with the idea of the Ether?
5. What is the Ether?
6. What did the physicists say about the about the viscosity of the ether?
7. What was the name of the instrument that would be used to find the motion of the earth through the ether.
8. If the two beams of light arrive at different times, would there be constructive or destructive interference?
9. Because of the sensitivity of the first interferometer, what affected its accuracy?
10. How much more sensitive was the interferometer that was built in 1887 from the one built in 1880?
11. What was used on the second interferometer to stop the outside vibrations that affected the first interferometer?
12. Were Michelson and Morley able to measure a difference in the time it took the light to travel the two paths.
13. In 1892 an Irish Physicist offered an explanation as to why the Michelson Morley experiment failed.. What did he say happened to on arm of the interferometer?
14. What does the idea of relativity say about absolute motion?
15. Who was the first American to win a Nobel Prize?