



Pierre Curie

1859 - 1906

Awarded the Nobel Prize for Physics in 1903

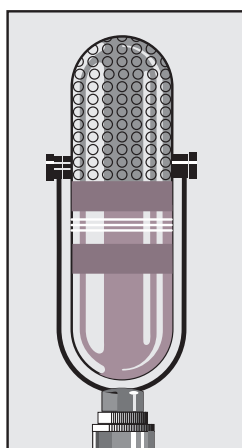
Pierre Curie was awarded the 1903 Nobel Prize together with his wife, Marie Curie, and Henri Becquerel, for their investigation of radioactivity.

He was born on May 15th, 1859, the second son of Sophie-Claire Depouilly and Eugene Curie. His mother was the daughter of a prominent manufacturer, and his father, a physician, who advocated revolutionary ideas.

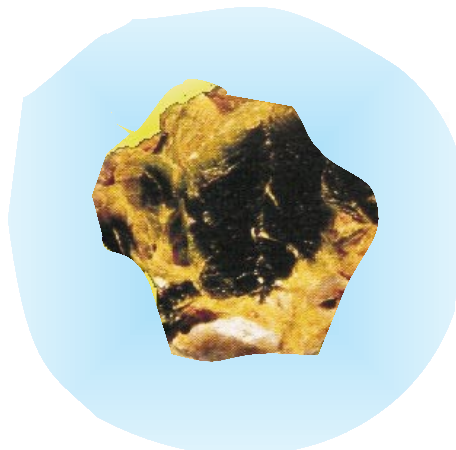
From an early age **Pierre was a 'dreamer'** and he was thought to have a 'slow mind'. Unlike his elder brother, Jacques, a more conventional learner, Pierre needed to focus exclusively and deeply on one thing at a time. Therefore, it was decided that he should be educated at home. First, he was taught by his mother, then by his father and brother; at fourteen he studied with an excellent professor of mathematics. Soon it became clear that he had exceptional intellectual qualities.

At the age of 16, Pierre went to the Sorbonne. After the university he did experimental work with his brother. Together they discovered that certain nonconducting crystals (such as quartz) developed an electric charge if distorted by increasing the pressure. Later, they showed experimentally that the inverse was also true. This phenomenon they named *the piezoelectric effect*. Nowadays, this effect is used in a wide range of instruments, such as microphones.

At the age of 32 Pierre Curie had been appointed to the head of the laboratory at the École Municipale de Physique et Chimie. This was a prestigious post, but Curie was more interested in continuing his own experimental work than in money or prestige.



His discovery led to the microphone



He and Marie discovered radium and polonium



Pierre died in a carriage accident



At the time Pierre met Marie he was completing his doctorate on the effect of heat on magnetic properties. He had discovered that above a certain crystal temperature (now named the Curie Point) ferromagnetics, such as iron or nickel, lose their ferromagnetic qualities. Marie also studied the magnetic properties of a certain steel. They soon became friends.

Pierre still remembered the tragic incident with the death of a young woman he had known and loved since his childhood. He seemed to have concluded that his intense and deep involvement in his work made romance impossible. But gradually it became clear that they had no future without each other, and so Marie and Pierre married in 1895. During their honeymoon, the newlyweds spent weekends cycling out in the countryside. At home and in the laboratory they became very close: they shared and discussed everything that interested them. They had two daughters, Irène and Eve.

In the first years of the Curies' marriage, the German experimentalist Röntgen discovered X-rays (1895), and the French physicist Becquerel revealed radioactivity. The Curies began to investigate minerals which had radioactivity superior to that of pure uranium, and soon they discovered the elements **Radium** and **Polonium**.

In 1904 Pierre Curie was appointed as professor of physics at the Sorbonne, but was unable to realize his dream of working in the new laboratory that he had equipped. He died in his forty seventh year after being struck by a carriage while crossing the rue Dauphine in Paris.

S.E.