



Albert Einstein

1879 - 1955

Awarded the Nobel Prize for Physics in 1921

Albert Einstein, one of the greatest physicists of all time, was born of Jewish parents in the town of Ulm in Germany on March 14th, 1879. Very soon the family moved to a suburb of Munich, where Albert's father, Hermann Einstein, ran a small electrochemical factory. There was another child, a daughter, Maja, one year younger than Albert. His mother, Pauline Koch, was a woman of strong character, who was interested in music. Albert did not show any early signs of genius. He was slow to talk and to most people **he must have seemed a rather dull little boy.**

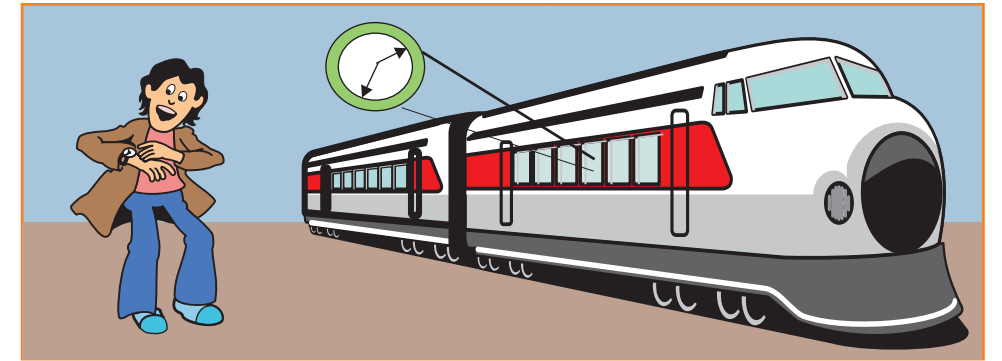
Einstein was ten years old when he entered the Luitpold Gymnasium in Munich, where most of his time was devoted to studying Latin and Greek grammar. Einstein's interest in mathematics was stimulated by his uncle at home; when he was about thirteen his attention was drawn to a series of popular books on natural science, and these he read with great enthusiasm.

Einstein entered the Zurich Polytechnic Institute in 1896, where he soon realized that he was a theoretical physicist by nature. He was largely self-taught. He spent much time studying privately with his girlfriend, Mileva, the works of the classical physicists.

Einstein did not easily find employment after graduating. He was a substitute teacher at a high school and later spent a year teaching at a private school. In 1902 he became a technical expert of the third-class at the Swiss Patent Office. Soon afterwards he married Mileva Maric. They had two sons. Although his marriage was happy at first, it eventually broke up. His next wife was his cousin, Elsa. After Elsa's death his sister, Maja, looked after him.



A clock on a train moving at near light-speed would seem, to a person outside, to be running slow...



One of Einstein's first fundamental papers, on the molecular kinetic theory of heat, was published in 1905. In the same year his great paper concerning the behavior of light, which gave rise to what is now known as *the Special theory of relativity*, appeared. This theory described how time seems to run slowly on something moving at near light-speed, and how nothing can move faster than light. Einstein also discovered that matter can be converted into energy. This is the source of energy in atomic explosions and nuclear reactors.

Einstein was awarded the **Nobel Prize for Physics in 1921** for his work in theoretical physics and in particular for the formulation of the law of the photoelectric effect, in terms of quantum theory. This prize money he gave to his first wife after they had been divorced.

Apart from physics, Einstein had a passion for music, he played the violin quite well, but mostly for relaxation, and was very fond of sailing.

In 1933, after Hitler became the Chancellor, Einstein left Germany. Because there were fears for his life in Europe, he was taken by a private yacht from Belgium to England and then he moved to the United States, where he lived until his death.

At the beginning of the Second World War he supported the American atomic bomb project but later, after Hiroshima and Nagasaki had been attacked, Einstein was among those who claimed that atomic bombs should never be used.

According to the people who met him Einstein was essentially a man of basic goodness and general kindness. He had a peculiar sense of humour and was completely lacking in self-importance.

His achievements in physics entitle him to be regarded as essentially the founder of 20th century theoretical physics and his theories remain at the centre of the subject.

S.E.

Although his work contributed to the atomic bomb he later campaigned against it.

