

Albert Einstein and the power of creativity

FROM EARLIEST TIMES people to the natural laws of the universe and our own world. Isaac Newton, the famous English mathematician, one of the greatest contributions to our understanding when he how the planets stay in orbit around the sun and how comets and stars in space. He also natural forces as gravity and friction objects on Earth. His explanations to



Newton's laws of motion. Because of these laws, modern science But as scientists more and more, they that Newton's laws not quite perfect. They did not some things exactly enough. It clear to many scientists that someone have to find a new, creative way to describe the way the universe works.

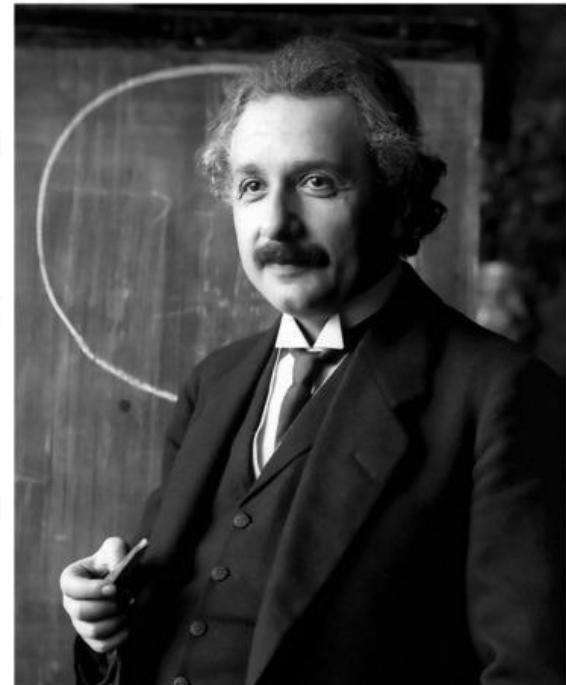
Albert Einstein born more than a hundred years ago in the city of Ulm, in southern Germany. He up at an exciting time, when new scientific discoveries were being made almost daily. Albert an observant boy. He to watch carefully what was happening around him, the motion of waves on a lake, the drift of clouds in the sky, the bending of tree branches in the breeze, the beauty of a rainbow. Whatever he something new to teach him.

One day when he was five years old, Albert Einstein something that was different from anything he had seen before. His father gave him a compass. The compass had a needle that pointed out which direction is north. No matter how much his father turned the compass to get the needle spinning, as soon as he stopped, the needle would come to a halt and point to north every time. Albert was amazed. It was almost like magic. There were no springs or gears in the compass that caused the needle move. there was just the pointer needle, which moved delicately so that it could turn in a full circle.

The boy could not understand what caused the needle act that way. It was as if some power caused the needle to point to the north. He could not understand this power, he could not understand it, he could not understand it. His father understood it magnetism but could not understand it. He understood what magnetism is.

Albert's father understood that there are invisible forces at work in the world which made a deep impression on him. It made him think in his mind many kinds of explanations to show why things behaved the way they did.

As he grew older, his interests in mathematics and science increased as well. By the time he was 17, he understood more about these subjects than most adults. He understood clearly that the latest experiments with light and with electricity produced results that did not quite agree with Newton's laws.



He

that it would take lots of creativity and imagination to a better understanding of the universe.

Einstein

his schooling and

a job at the patent

office in Berne, Switzerland. Now he was able to down the ideas he had stored away in his mind.

In 1905 he

a series of papers

his ideas. They

the way scientist

about

the world. Einstein

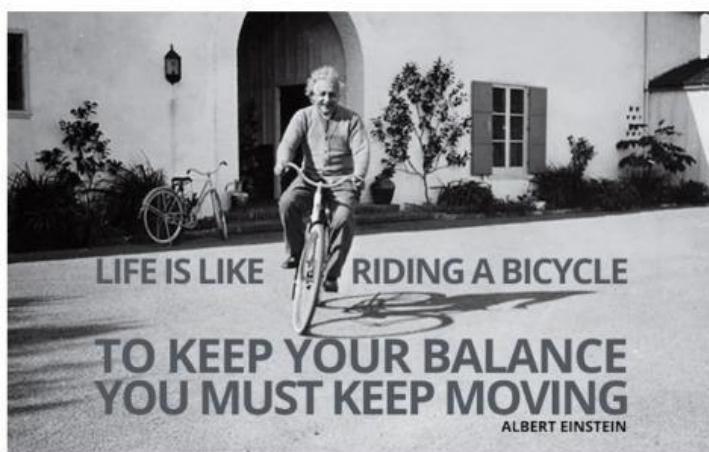
scientists understand how the atom

put together. In his special theory of relativity, he

how space, time, and motion are related. He also

in his now famous equation, $E = mc^2$, that energy and matter are closely

Ten years later Einstein published his general theory of relativity. It



an entirely new concept of gravitation. The theory

that the universe is curved, something like the surface of a very large soap bubble.

Soon astronomers observations that Einstein's predictions, and

scientists around the world Einstein one of the greatest thinkers of all time. He was the Nobel prize in physics.

Albert Einstein's creativity scientists a new way to understand the mysteries of very small things, like atoms, and of every large things, like space. His genius our world of nuclear power and space travel possible.