

Einstein Said

"It followed from the Special Theory of Relativity that mass and energy are both but different manifestations of the same thing."

Love of Music

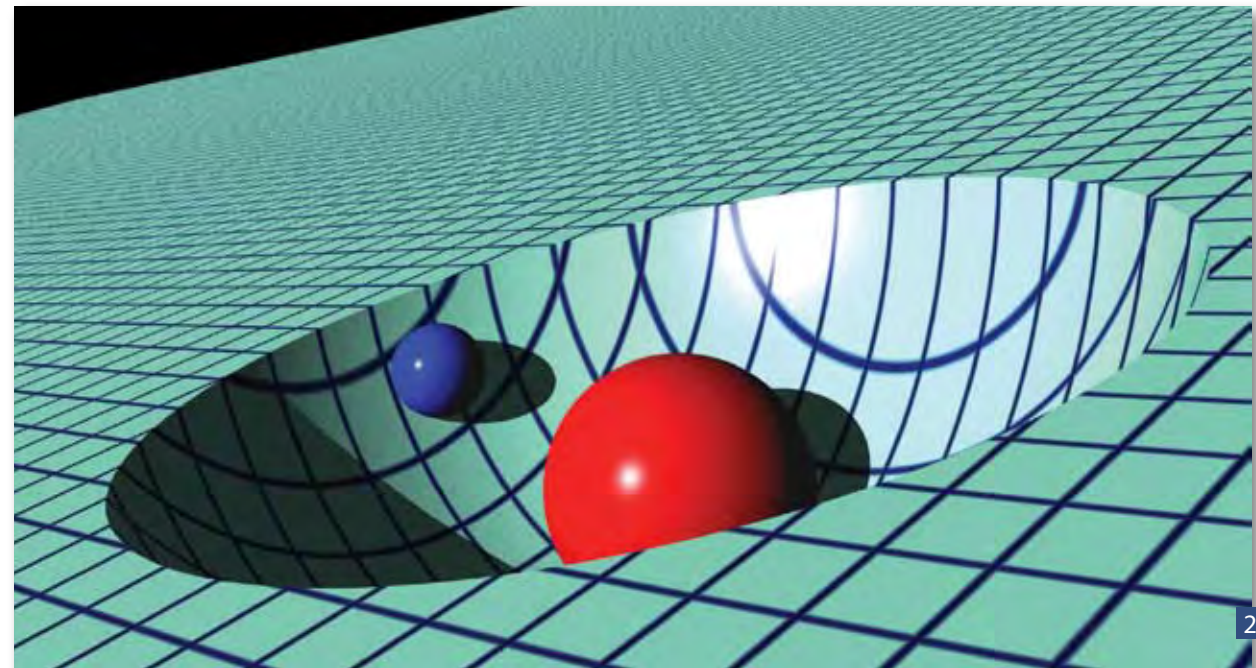
Einstein spent a lot of time thinking and studying alone. He needed a way to relax. Playing music on his violin became one of his favorite things to do. Some people said he wasn't very good at it. But he really enjoyed doing it.

General Theory of Relativity

There was only one problem with Special Relativity. It didn't explain gravity. The pull of gravity can be felt very far away. It also works instantly. The gravity of a star will pull you closer before you see its light. Did that mean that gravity moved faster than light? It took Einstein ten years to find the answer.

Einstein found that spacetime wasn't all the same. Some parts were bent and curved. The curves were easiest to see around large amounts of mass and energy, like stars. Planets and other small bodies could fall down the curves or roll around the edges. Gravity didn't travel faster than light. It wasn't a force at all. It was spacetime bending around mass and energy.

↓ Einstein showed how gravity was actually the curve of spacetime caused by the mass of stars and planets.



The Bomb

In the 1930s, Einstein was concerned about the German war effort. He was afraid the country would make and use an **atomic bomb**. Einstein didn't believe in war, but he did believe that action was needed. He wrote to President Franklin Roosevelt of the United States. He urged him to build the bomb before Germany did. This led to the Manhattan Project. It was a project in the United States to build an atomic bomb.

The project began in 1942. Einstein's work was very important to it. However, the bomb troubled Einstein. He didn't want it to be used. He knew that it would have terrible effects. In March of 1945, he wrote again to Roosevelt. Einstein warned him not to use the bomb. Roosevelt died in April.

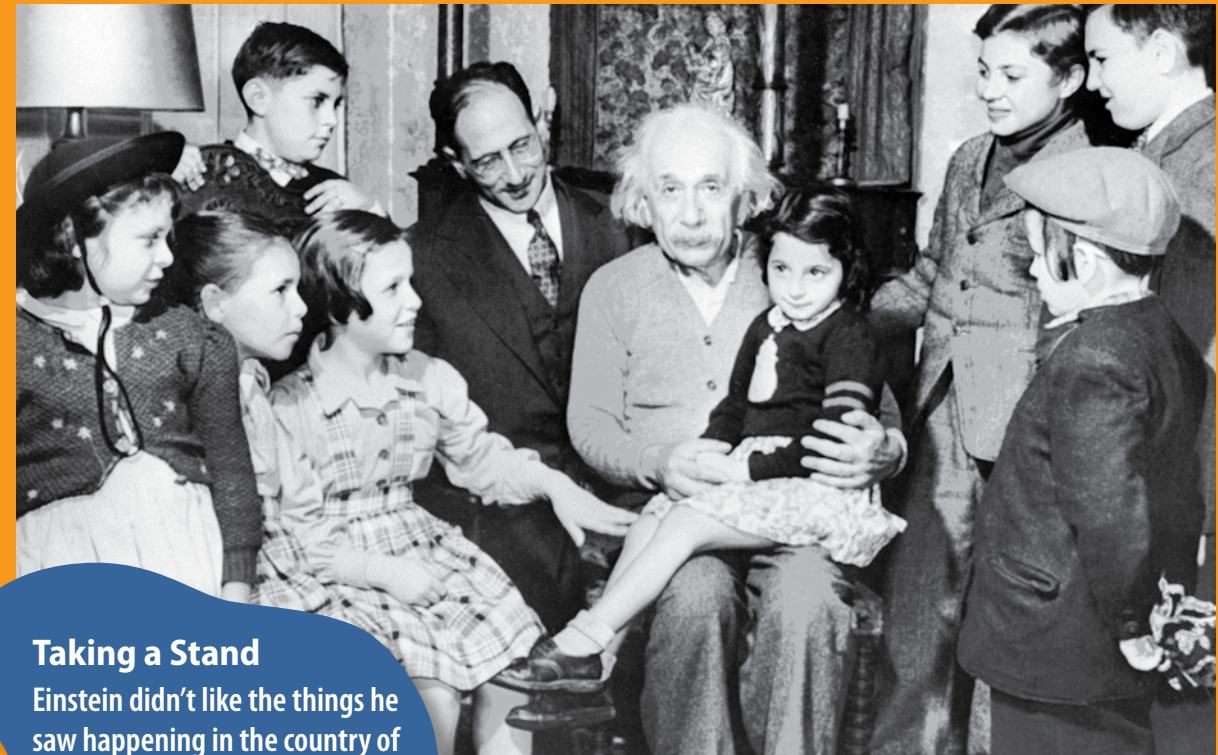
Einstein's letter was found unopened on his desk.

The next president, Harry Truman, did use the atomic bomb. He ordered two bombings of Japan in August of 1945. More than 200,000 people died as a result of the blasts. Japan surrendered soon thereafter. When Einstein

← Einstein hoped that building the bomb would bring about peace. It was his wish that it would never have to be used.

heard the news, he dropped his head in his hands. He said, "I could burn my fingers that I wrote that first letter." He thought 200,000 deaths was too high a price to pay for the surrender.

Albert Einstein died on April 18, 1955, in Princeton, New Jersey. He left behind a wealth of work. It is still leading to new discoveries. With Einstein's help, scientists are learning more about the universe and its laws every day.



Taking a Stand

Einstein didn't like the things he saw happening in the country of his birth. He moved to the United States to become a professor of physics at Princeton. He then became a citizen of the United States in 1940.

↑ Many people wonder what other scientific discoveries may have died with Einstein. He is pictured here at his 70th birthday party with his son and grandchildren.