

# A Truly Beautiful Mind

## Introduction

This story shows Einstein as a human being, a fairly ordinary person who had his likes and dislikes, his streaks of rebellion and his problems. It traces his journey from the ordinary to the extraordinary.

## Summary

Albert Einstein was born on 14 March, 1879 in the city of Ulm in Germany. He did not show any indication of future greatness. He was a late talker and did not mix and play with his playmates. He played by himself much of the time and loved mechanical toys. His headmaster had once told his father that Einstein will never be successful at anything. On his mother's encouragement, he began learning to play violin at the age of six. He later became a gifted amateur violinist. He attended a high school in Munich. Though he was a good student, he hated the school's regimentation and left the school at the age of 15.

He then continued his education in German-speaking Switzerland in a city which was more liberal than Munich. He was highly gifted in mathematics and interested in physics.

After finishing school, he joined a university in Zurich. There he met Mileva Maric a young Serbian student. The couple fell in love.

In 1900, at the age of 21, Albert Einstein was a university graduate. In 1902, he secured a job as a technical expert in the patent office in Bern. He developed his own ideas in physics in secret. He published four papers in 1905. One of them was Einstein's Special Theory of Relativity. He established the world's most famous formula:  $E = mc^2$ .

He married Mileva in January 1903. They had two sons. But a few years later, the marriage faltered and the couple finally divorced in 1919. Einstein married his cousin Elsa the same year.

In 1915, Einstein published his General Theory of Relativity. It provides a new interpretation of gravity. The newspapers proclaimed his work as 'a scientific revolution'.

Einstein received the Nobel Prize for Physics in 1921.

When the Nazis came to power in Germany in 1933, Einstein emigrated to the United States. Five years later, the discovery of nuclear fission in Berlin had American physicists in an uproar.

At the urge of a colleague, Einstein wrote a letter to the American President of Franklin D. Roosevelt on 2 August, 1935. The letter warned about the extent of destruction which can be caused by the explosion of an atom bomb. The advice and the Americans developed the atom bomb in a secret project and dropped it on the Japanese cities of Hiroshima and Nagasaki in August 1945.

Einstein was deeply shaken by the extent of the destruction caused in these two cities. He wrote a letter to the United Nations and proposed the formation of a world government. Over the next decade Einstein agitated for the end of the arms buildup and campaigned for peace and democracy. When he died in 1955 he was celebrated as a world citizen.

## Message

This story conveys the message of universal brotherhood. It also motivates the children to pursue their dreams.

## Extract Based Questions

### 1. Read the extract given below and answer the questions that follow:

Albert Einstein was born on 14 March, 1879 in the German city of Ulm, without any indication that he was destined for greatness. On the contrary, his mother thought Albert was a freak. To her, his head seemed much too large.

At the age of two-and-a-half, Einstein still wasn't talking. When he finally did learn to speak, he uttered everything twice. Einstein did not know what to do with other children, and his playmates called him 'Brother Boring.' So the youngster played by himself much of the time. He especially loved mechanical toys. Looking at his newborn sister, Maja, he is said to have said: 'Fine, but where are her wheels?'

#### (a) 'He uttered everything twice' means:

- (i) he wanted to talk more and more
- (ii) he used to repeat the words
- (iii) he used to stress what he talked
- (iv) he wasn't able to speak

#### (b) Fill in the blank with one word only.

Einstein's playmates used to call him 'Brother Boring' and he remained upto ..... all the time.

#### (c) State whether the given statement is True or False.

Einstein was very popular with other children in his childhood.

#### (d) The word 'Freak' means the same as .....

## Answers

(a) (ii) he used to repeat the words

(b) himself

(c) False

(d) abnormal

### 2. Read the extract given below and answer the questions that follow:

A headmaster once told his father that what Einstein chose as a profession wouldn't matter, because 'he'll never make a success at anything.' Einstein began learning to play the violin at the age of six, because his mother wanted him to; he later became a gifted amateur violinist, maintaining this skill throughout his life.

But Albert Einstein was not a bad pupil. He went to high school in Munich, where Einstein's family had moved when he was 15 months old, and scored good marks in almost every subject. Einstein hated the school's regimentation, and often clashed with his teachers.

- (a) Einstein hated the school's regimentation as the school had a strict ..... which he disliked.  
 (i) discipline (ii) laws  
 (iii) rules (iv) manners
- (b) Albert Einstein went to high school in Munich where his family had shifted from ..... when he was 15 months old.
- (c) The antonym of 'amateur' is:  
 (i) dabbler (ii) laymen  
 (iii) professional (iv) enthusiast
- (d) Complete the analogy with a word from the extract.  
 success : triumph :: talent : .....

### Answers

- (a) (i) discipline  
 (b) Ulm  
 (c) (iii) professional  
 (d) skill

#### 3. Read the extract given below and answer the questions that follow:

The previous year, Albert's parents had moved to Milan, and left their son with relatives. After prolonged discussion, Einstein got his wish to continue his education in German-speaking Switzerland, in a city which was more liberal than Munich.

Einstein was highly gifted in mathematics and interested in physics, and after finishing school, he decided to study at a University in Zurich. But science wasn't the only thing that appealed to the dashing young man with the walrus moustache.

- (a) Einstein was good at studies and he was exceptionally good in:  
 (i) Mathematics  
 (ii) Physics  
 (iii) Literature  
 (iv) German
- (b) Einstein had a prolonged discussion with his family, relatives and finally, his parents agreed to put him in a school in .....
- (c) 'But Science wasn't the only thing' here means:  
 (i) Science was his favourite subject  
 (ii) he wasn't good at Science  
 (iii) other than Science, he had interest in something else also  
 (iv) he liked Science more than other subjects
- (d) Complete the analogy with a word from the extract.  
 prolonged : extended :: lenient : .....

### Answers

- (a) (i) Mathematics  
 (b) Switzerland  
 (c) (iii) other than Science, he had interest in something else also  
 (d) liberal

#### 4. Read the extract given below and answer the questions that follow:

He also felt a special interest in a fellow student, Mileva Maric, whom he found to be a 'clever creature.' This young Serb had come to Switzerland because the University in Zurich was one of the few in Europe where women could get degrees. Einstein saw in her an ally against the 'philistines'—those people in his family and at the university with whom he was constantly at odds. The couple fell in love. Letters survive in which they put their affection into words, mixing science with tenderness. Wrote Einstein: 'How happy and proud I shall be when we both have brought our work on relativity to a victorious conclusion.'

- (a) Einstein saw in her an ally against the 'philistines'. Einstein felt that Mileva was:  
 (i) a good person with interest in art and culture  
 (ii) a friend to him having the common interest  
 (iii) the one whom he could love  
 (iv) the one who could help him
- (b) Albert Einstein and Mileva Maric used to write such kinds of love letters where they used to mix science .....
- (c) Choose the word which is opposite in meaning to 'ally'.  
 (i) Associate (ii) Partner  
 (iii) Friend (iv) Antagonist
- (d) State whether the given statement is True or False.  
 Mileva Maric belonged to Serbia.

### Answers

- (a) (iii) the one whom he could love  
 (b) with their feelings  
 (c) (iv) Antagonist  
 (d) True

#### 5. Read the extract given below and answer the questions that follow:

Einstein's new personal chapter coincided with his rise to world fame. In 1915, he had published his General Theory of Relativity, which provided a new interpretation of gravity. An eclipse of the sun in 1919 brought proof that it was accurate. Einstein had correctly calculated in advance the extent to which the light from fixed stars would be deflected through the Sun's gravitational field. The newspapers proclaimed his work as 'a scientific revolution.'

Einstein received the Nobel Prize for Physics in 1921. He was showered with honours and invitations from all over the world, and lauded by the press.

- (a) Einstein's new personal chapter began when:  
 (i) he became world famous  
 (ii) he was acknowledged as a great scientist  
 (iii) he married Elsa, his cousin  
 (iv) he gave a new interpretation to gravity

- (b) Albert Einstein calculated that a solar eclipse in 1919 would change the ..... of stars to some extent.
- (c) Choose the word which is similar in meaning to 'Lauded'.
- (i) Praised (ii) Criticised  
(iii) Condemned (iv) Rebuked
- (d) Complete the analogy with a word from the extract.  
coincide : concur :: publicised : .....

### Answers

- (a) (iii) he married Elsa, his cousin  
(b) apparent position  
(c) (i) Praised  
(d) proclaimed
6. Read the extract given below and answer the questions that follow:
- At the urging of a colleague, Einstein wrote a letter to the American President, Franklin D. Roosevelt, on 2 August, 1939, in which he warned: 'A single bomb of this type exploded in a port, might very well destroy the whole part together with some of the surrounding territory.' His words did not fail to have an effect. The Americans developed the atomic bomb in a secret project of their own and dropped it on the Japanese cities of Hiroshima and Nagasaki in August 1945.
- (a) A character trait of Einstein that is shown in this extract is his:
- (i) humanitarian quality (ii) kindness  
(iii) trust on others (iv) faith on people
- (b) Einstein warned the President of America about a powerful atomic bomb developed by .....
- (c) The antonym of 'destroy' is:
- (i) create (ii) demolish  
(iii) ruin (iv) damage
- (d) Complete the analogy with a word from the extract.  
drop : throw :: miss : .....

### Answers

- (a) (i) humanitarian quality  
(b) Germany  
(c) (i) create  
(d) fall



### Short Answer Type Questions

Q 1. What did Einstein's headmaster told his father?

Ans. The headmaster did not like Einstein. He thought that Einstein was a stupid boy. Once he told his father that whatever profession he chose, he would never make a success in his life. He thought that Einstein was incapable of achieving anything in life.

Q 2. Why did Einstein leave school in Munich?

Ans. Einstein scored good marks in almost every subject. But he hated the school's regimentation. He often clashed with his teachers. By the age of 15, he felt so stifled that he left the school.

Q 3. What did Einstein call his desk drawer and why?

Ans. Einstein called his desk drawer at the patent office the 'Bureau of Theoretical Physics'. It was named so because he was always busy in developing new ideas. He kept all the papers related to his ideas in the desk in his office.

Q 4. What was Einstein's 'Special Theory of Relativity' about?

Ans. Einstein's 'Special Theory of Relativity' stated that time and distance are not absolute. This theory helped to describe the relationship between energy, mass and speed of light in the following manner:  
Energy (E) = Mass (m) \* [Speed of light in vacuum (c)]<sup>2</sup>

Q 5. Why was Einstein attracted towards Mileva?

Ans. Mileva was clever like Einstein. She liked academics, art, literature and music. This attracted Einstein towards her.

Q 6. Why was Einstein's mother against his marriage with Mileva?

Ans. Einstein wanted to marry Mileva right after he finished his studies. But his mother was against it. Mileva was three years older than Einstein. So, her mother thought her to be too old for him. She was also bothered by Mileva's intelligence. According to his mother she was a book just like Einstein.

Q 7. Write briefly about Einstein's married life.

Ans. Einstein had married Mileva Maric, a Serbian who was three years older than him, in 1903 despite opposition from his family. The couple had two sons. However, after marriage Mileva was not able to pursue her intellectual ambitions and there were constant fights between them. They finally got divorced in 1919. In the same year Einstein married his cousin Elsa.

Q 8. Why did Einstein shifted to the United States?

Ans. The Nazis came to power in Germany in 1933. Because of their policy of fascism Einstein shifted to the United States.

Q 9. Why did Einstein write a letter to Franklin Roosevelt?

Ans. Albert Einstein wrote a letter to the American President, Franklin D. Roosevelt on 2 August, 1939. In it he wrote that a single nuclear bomb might destroy the whole part if exploded there. It might also destroy the surrounding territory. Einstein hinted that the mad race for atomic bomb could destroy the world. He wanted to warn the American President about the destruction which can be brought by a nuclear bomb.

Q 10. What was Einstein's reaction to the bombing of Hiroshima and Nagasaki?

Ans. Einstein was deeply shaken by the extent of destruction caused in Hiroshima and Nagasaki by the atomic bombs. He immediately wrote a letter to the United Nations and proposed the formation of a world government.

**Q 11. Why is Einstein remembered as a 'world citizen'?**

**Ans.** Einstein proposed for the formation of a world government. He got involved in politics and agitated for an end to arms build up. He used his popularity to campaign for peace and democracy. Hence, he is remembered as a 'world citizen'.



## Long Answer Type Questions ↘

**Q 1. Write briefly about Albert Einstein's education.**

**Ans.** Albert Einstein was not a bad pupil. When he was at high school in Munich, he scored good marks in almost every subject. But he hated the school's regimentation and clashed with his teachers. At the age of 15, Einstein left the school. Then, he joined a school in Switzerland. Einstein was highly gifted in mathematics and interested in physics. After completing his school, he studied at a university in Zurich. In 1900, at the age of 21, Einstein graduated.

**Q 2. Describe Albert Einstein's contribution in the field of science.**

**Ans.** Albert Einstein took the world by storm at the age of 26. In the summer of 1905, he published four papers in quick succession. The papers were about light, the motion of particles, the electrodynamics of moving bodies and energy. They changed forever

our understanding of space, time and the entire cosmos.

One of these papers contained Einstein's 'Special Theory of Relativity'. The paper said that time and distance are not absolute. It described the relationship between mass and energy.

His General Theory of Relativity was published in 1915. It provided a new interpretation of gravity. The press proclaimed his work as 'a scientific revolution.' Einstein received the Nobel Prize for Physics in 1921.

**Q 3. Why does the world remember Einstein as a 'World Citizen'?**

**Ans.** Einstein disliked the authoritarian order of the world. When the Nazis came to power in Germany, Einstein emigrated to the United States. When the Americans dropped atom bombs on Hiroshima and Nagasaki in August 1945, Einstein was deeply shaken by the extent of the destruction. He wrote a public missive to the United Nations proposing the formation of a world government. He launched an agitation to bring an end to arms buildup. He campaigned for peace and democracy.

So, when Einstein died in 1955, he was celebrated as a 'World Citizen'.

