



# Beehive 4: A Truly Beautiful Mind

#### 1. Summary

This chapter is about the great scientist, Albert Einstein (1843-1955). The title suits the man, a genius, who was not just a Nobel Prize winner for Physics, but also a peace loving man. He grew up as an ordinary child and didn't show much promise of great achievements. However, his brilliance couldn't remain hidden. He became renowned as a great scientist and mathematician. The extraordinary part is that he had a compassionate, kind and peaceful side to him. He believed in nonviolence and spoke up against nuclear power. He was a humanitarian who believed in democracy. The story shows how a scientist's mind can be beautiful.

To learn more about Einstein's life in Princeton University where he taught, worked and lived until his death in 1955, click on the link below. Einstein believed that all people were equal and when an African-American singer Marian Andersen came to Princeton to sing, she was refused a room at a hotel there because of racism. Coloured people at that time in USA did not have equal rights and were not allowed into many places. Einstein invited her to stay at his home and in future whenever she came to Princeton she always stayed with him.

https://www.youtube.com/watch?v=I2qkgIE\_jPc

## 2. Vocabulary

- Indication a sign or piece of information that points at something.
   Common cold and cough are sometimes an indication of flu.
- Destined intended for a particular purpose.
   Gandhiji's life was destined for a great purpose, to serve India.
- Contrary the opposite of. Hot and cold are contrary words.
- Freak unusual, or deformed.
   The pup was a freak case, being born with just three legs.



#### 5. Uttered - said

He never **uttered** a word after his stroke.

- 6. Amateur following an activity for pleasure, not for money.He was an amateur singer before he took up a job in the bank.
- Gifted having an ability or talent.
   She is an amateur, but a very gifted dancer.

#### 8. Regimentation - control

I felt stifled when I was in boarding school because there was so much regimentation.

- 9. Stifled inability to breathe because you have no air; or not allowed to express your thoughts or feelings
  We feel stifled in a crowded room.
  I felt stifled in class because the teacher didn't want us to talk, only to listen.
- 10. Prolonged going on for a long time.Prolonged use of some medicines can have serious side effects.
- Liberal one who respects and allows different beliefs.
   A liberal tolerates different ideas and behaviours.
- 12. **Dashing** A man who is handsome and confident Amitabh Bachchan was a **dashing** young man.
- 13. Creature any small or large living thing that can move independently.I saw a science fiction film about creatures from outer space.
- 14. Ally someone who helps and supports.When my friends and I were arguing, Hari was my only ally.
- 15. Philistines people who do not like art, music, culture or literature.Philistines often think that a cultural show is a waste of time and money.
- At odds in disagreement.
   The two friends were at odds on political issues.
- Patent the exclusive right granted to a manufacturer or inventor.
   The inventor of the telephone, Graham Bell, was granted a patent for his invention.



- Assessing calculating the price/value of something.
   The Inspector was assessing the value of the jewels stolen by the thief.
- Absolute measured in itself, not in relation to anything else The absolute measurement of the stick was one metre, but it was shorter than the other stick.
- 20. Unravelling solving, explaining; also, untying, falling apart The detectives were putting together clues, gradually unravelling the cause of death.
   Their beautiful friendship started unravelling when they moved to different cities.
- 21. Faltered became weak.In the final half of the race she faltered and lost speed.
- Coincided occurred at the same time.
   The release of the film on Gandhiji coincided with his 150<sup>th</sup> birthday.
- 23. **Interpretation** an explanation of the meaning of something. The artist performed an **interpretation** of the Ramayana through her dance performance.
- 24. **Deflected** changed direction or side. The strong wind was **deflected** by the hills.
- 25. In an uproar very upset; a lot of noise or agitation.The crowd in the street was in an uproar when a cyclist was hit by a car.
- 26. Exploded burst due to great force, shattered violently.The gas cylinder burst and the house exploded with a loud noise.
- 27. **Missive** a long and important letter. They waited for a **missive** from the authorities before launching an air strike at the enemy.
- 28. Visionary a person with keen foresight and one who is ahead of his time in his ideas.A visionary sees future problems and takes steps to deal with them in time.



# 3. Questions

1. Here are some headings for paragraphs in the text. Write the number(s) of the paragraph(s) for each title against the heading.

(i)	Einstein's equation
(ii)	Einstein meets his future wife
(iii)	The making of a violinist
(iv)	Mileva and Einstein's mother
(v)	A letter that launched the arms race
(vi)	A desk drawer full of ideas
(vii)	Marriage and divorce

- 2. Who had these opinions about Einstein?
  - (i) He was boring.
  - (ii) He was stupid and would never succeed in life.
  - (iii) He was a freak.
- 3. Explain what the reasons for the following are.
  - (i) Einstein leaving the school in Munich for good.
  - (ii) Einstein wanting to study in Switzerland rather than in Munich.
  - (iii) Einstein seeing in Mileva an ally.
  - (iv) What do these tell you about Einstein?
- 4. What did Einstein call his desk drawer at the patent office? Why?
- 5. Why did Einstein write a letter to Franklin Roosevelt?
- 6. How did Einstein react to the bombing of Hiroshima and Nagasaki?
- 7. Why does the world remember Einstein as a "world citizen"?



- 8. Here are some facts from Einstein's life. Arrange them in chronological order.
  - [] Einstein publishes his special theory of relativity.
  - [] He is awarded the Nobel Prize in Physics.
  - [] Einstein writes a letter to U.S. President, Franklin D. Roosevelt, and warns against Germany's building of an atomic bomb.
  - [] Einstein attends a high school in Munich.
  - [] Einstein's family moves to Milan.
  - [] Einstein is born in the German city of Ulm.
  - [] Einstein joins a university in Zurich, where he meets Mileva.
  - [] Einstein dies.
  - [] He provides a new interpretation of gravity.
  - [] Tired of the school's regimentation, Einstein withdraws from school.
  - [] He works in a patent office as a technical expert.
  - [] When Hitler comes to power, Einstein leaves Germany for the United States

#### 4. Grammar

- I. Here are some sentences from the story. Choose the word from the brackets which can be substituted for the italicised words in the sentences.
  - 1. A few years later, the marriage *faltered*. (failed, broke, became weak)
  - 2. Einstein was constantly *at odds* with people at the university. (on bad terms, in disagreement, unhappy)
  - 3. The newspapers *proclaimed* his work as "a scientific revolution." (declared, praised, showed)
  - 4. Einstein got ever more involved in politics, *agitating* for an end to the arms build up. (campaigning, fighting, supporting)
  - 5. At the age of 15, Einstein felt so stifled that he left the school for *good.* (permanently, for his benefit, for a short time)
  - 6. Five years later, the discovery of nuclear fission in Berlin had American physicists in an *uproar*. (in a state of commotion, full of criticism, in a desperate state)



- 7. Science wasn't the only thing that *appealed* to the dashing young man with the walrus moustache. (interested, challenged, worried)
- II. Study the following sentences.
  - Einstein became a gifted amateur violinist, *maintaining this skill throughout his life.*
  - Letters survive in which they put their affection into words, *mixing science with tenderness.*

The parts in italics in the above sentences begin with –ing verbs, and are called participial phrases. Participial phrases say something more about the person or thing talked about or the idea expressed by the sentence as a whole. For example:

– Einstein became a gifted amateur violinist. He maintained this skill throughout his life.

Click on the link below to understand participial phrases better.

https://www.youtube.com/watch?v=RV21fw4FOXg

Complete the sentences below by filling in the blanks with suitable participial clauses. The information that has to be used in the phrases is provided as a sentence in brackets.

- 1. \_\_\_\_\_, the fire fighters finally put out the fire. (They worked round the clock.)
- 2. She watched the sunset above the mountain, \_\_\_\_\_\_ (She noticed the colours blending softly into one another.)
- 3. The excited horse pawed the ground rapidly, \_\_\_\_\_ (While it neighed continually.)
- 4. \_\_\_\_\_, I found myself in Bangalore, instead of Benaras. (I had taken the wrong train.)
- 5. \_\_\_\_\_, I was desperate to get to the bathroom. (I had not bathed for two days)
- 6. The stone steps, \_\_\_\_\_ needed to be replaced. (They were worn down).



### 5. Writing Newspaper Reports

1. Here are some notes which you could use to write a report.

21 August 2005 — original handwritten manuscript of Albert Einstein unearthed — by student Rowdy Boeynik in the University of the Netherlands — Boeynik researching papers — papers belonging to an old friend of Einstein — fingerprints of Einstein on these papers —16page document dated 1924 — Einstein's work on this last theory behaviour of atoms at low temperature — now known as the Bose-Einstein condensation — the manuscript to be kept at Leyden University where Einstein got the Nobel Prize.

Write a report which has four paragraphs, one each on:

- What was unearthed.
- Who unearthed it and when.
- What the document contained.
- Where it will be kept.

Your report could begin like this

**Student Unearths Einstein Manuscript** 

21 AUGUST 2005. An original handwritten Albert Einstein manuscript has been unearthed at a university in the Netherlands . . .

2. Practice

Cultural Society Sunshine Public School, Nellore organised an adult literacy camp in its neighbourhood. Write a report in 150-200 words on the camp for your school newsletter. You are P.V. Sunitha, Secretary. Use the following clues: no. of volunteers – hours spent in teaching – location of the class – chairs, blackboards – no. of people attending the camp – benefit.



1.	Heading and Reporter's name	01 mark
2.	Content	04 marks
3.	<ul> <li>Expression <ul> <li>a) Grammatical accuracy, appropriate words and spellings.</li> <li>b) Coherence and relevance of ideas and style.</li> </ul> </li> </ul>	2.5 marks 2.5 marks
	Total	10 marks

# 3. Report Writing Format and marks allotted

#### 6. Dictation

# Your teacher will dictate these paragraphs to you. Write down the paragraphs with correct punctuation marks.

In 1931 Charlie Chaplin invited Albert Einstein, who was visiting Hollywood, to a private screening of his new film, City Lights. As the two men drove into town together, passersby waved and cheered. Chaplin turned to his guest and explained: "The people are applauding you because none of them understands you and applauding me because everybody understands me."

One of Einstein's colleagues asked him for his telephone number one day.

Einstein reached for a telephone directory and looked it up. "You don't remember your own number?" the man asked, startled.

"No," Einstein answered. "Why should I memorise something I can so easily get from a book?" (In fact, Einstein claimed never to memorise anything which could be looked up in less than two minutes.)