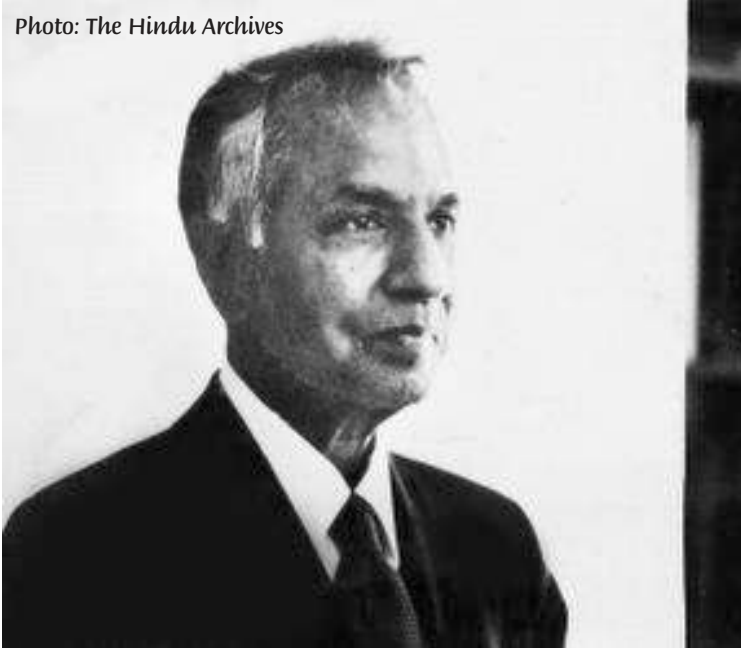




### Know the scientist

Photo: The Hindu Archives



**Subrahmanyan Chandrasekhar** (1910 - 1995) was an India-born American astrophysicist, who won the Nobel Prize (along with William A. Fowler) for key discoveries related to the evolution of massive stars. Chandrasekhar was born in Lahore, Pakistan, and grew up in Madras (today's Chennai). And did you know he was the nephew of famous physicist C.V. Raman? He studied physics at Presidency College, Madras, and went on to pursue Ph.D at the University of Cambridge, in England, in 1930, after receiving a scholarship. Here he worked under R.H. Fowler on an improved model for the limiting mass of the degenerate star.

Chandrasekhar reviewed Fowler's and others' work on the degenerate electron gas in white dwarf stars. He determined that a star having a mass more than 1.44 times that of the Sun does not form a white dwarf but instead continues to collapse, blows off its gaseous envelope in a supernova explosion, and becomes a neutron star. The maximum mass of a stable white dwarf star later came to be called the Chandrasekhar Limit. These calculations contributed to the eventual understanding of supernovas, neutron stars, and black holes.

In 1937, Chandrasekhar was recruited to the University of Chicago faculty, a position he

remained in until his death. He and his wife became American citizens in 1953. Chandrasekhar also studied stellar structure, hydrodynamics, radiative transfer, mathematical theory of black holes and colliding gravitational waves. Chandrasekhar, who considered mathematician Srinivasa Ramanujan as his inspiration, was instrumental in establishing the Ramanujan Institute of Mathematics in Madras in the 1940s. He had strong association with many scientific institutions and young scientists back in India. Chandrasekhar died in 1995.

NASA named the Chandra X-ray Observatory after Chandrasekhar. It was launched and deployed by Space Shuttle Columbia in 1999. The Chandrasekhar Number, an important dimensionless number of magnetohydrodynamics, is named after him. Asteroid 1958 Chandra is also named after him.

**Now that you have read about the scientist, answer the following questions.**

- Whom did Chandrasekhar share the Nobel Prize with?
- NASA named an observatory after Chandrasekhar. Name it.

Answers: 1. William A. Fowler, 2. The Chandra X-ray Observatory

### Word of the day

#### Torpor

##### Meaning

Torpor is a state of physical/mental inactivity or lethargy. Torpor appears to be an involuntary state that one enters into as the conditions dictate. The term can also refer to the time a hibernator spends at low body temperature, lasting days to weeks.

##### Origin:

The term is a noun and it comes from the Latin *torpere* meaning "be numb, inactive or sluggish". Its first-known use was in the 13th Century Middle English when it referred to intellectual lethargy. The term resurfaced in the early 17th Century to refer to both mental and physical sluggishness.

##### Example sentence:

Lulled by the gentle breeze and soothing music, I drifted into a deep torpor.

##### Activity:

Use the word of the day in a sentence of your own.

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### Fun facts

#### 1. Turkeys blush!

If you thought humans alone are capable of blushing, think again. When turkeys are scared, annoyed or excited, the pale pink-coloured skin on their head and neck turns into a vibrant red, blue or white. The skin hanging from the top of the turkey's beak too turns red.

**Q. What do you call the flap of skin hanging from a turkey's beak?**

#### 2. Oldest living land animal

Heard of Jonathan, the Seychelles giant tortoise? Aged 188, he is the oldest living land animal in the world. Said to have hatched in 1832, he lives on the island of St. Helena in the South Atlantic Ocean.

**Q. Can you find out the name of another tortoise that lived up to 188 years old?**

Answers  
1. Snood  
2. Tort. Mallica  
a radiated  
tortoise, which  
died in 1965

### What's the good word?

Many words have more than one meaning. In the sentences below, write down one word that fits both the descriptions

- To think deeply about something; a group of offspring of a bird or animal. \_\_\_\_\_
- A large device used in weaving; an event about to happen. \_\_\_\_\_
- A place where food is prepared and served; a place that's disorderly. \_\_\_\_\_
- To push one object on to another; the term for newspapers as a medium. \_\_\_\_\_
- Rubbish that's thrown away; to reject a suggestion or what's offered. \_\_\_\_\_



K.K. Mustajfeh

Answers: 1. Brood, 2. Loom, 3. Mess, 4. Press, 5. Refuse.

### War of words

Strike up a debate on the given topic



Olympics are one of the biggest sporting events in the world. The ongoing coronavirus pandemic has postponed Tokyo Olympics to next year. Put on your thinking cap and get ready to argue both sides.

**Do we need to have mega sports events like the Olympics?**

Yes \_\_\_\_\_

No \_\_\_\_\_

### Journal Writing

Dear Diary,

Over the past few months of lockdown, I have begun to like this game ...

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Use your imagination and write a note in 150 words. Mail it to [school@thehindu.co.in](mailto:school@thehindu.co.in) with the subject line: Journal Writing. The best pieces will be published on Page 3 in the Inbox column from Monday to Friday.

### Sports GK



The International Cricket Council (ICC) is the governing body of cricket. It was founded in 1909 by representatives from Australia, England and South Africa. When it was founded, it was known as the \_\_\_\_\_ Cricket Conference before being renamed International Cricket Conference in 1965, and finally its current name. Fill in the blank.

Answer: Imperial

### Fun with shapes

From the list of words mentioned below, circle the word that is a synonym of quadrilateral.

Trigon

Quardagon

Trapezium

Tetragon

Fourangle

Answer: Tetragon