

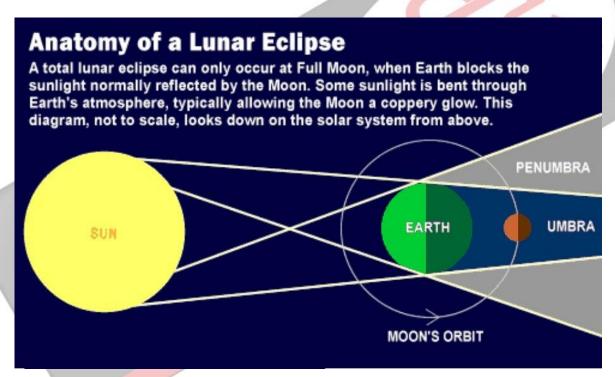
## **Total Lunar Eclipse and 'Blood Moon'**

## **Source: TH**

A **total lunar eclipse** is set to occur on the night of **7th September 2025**. At this time, the moon will be completely covered by the **Earth's shadow**, turning copper red **(Blood Moon)**.

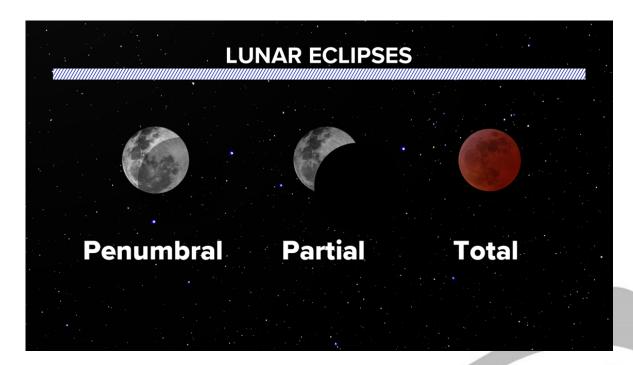
## **Total Lunar Eclipse**

About: A total <u>lunar eclipse</u> occurs when the Moon passes entirely through Earth's umbra (darkest part of its shadow), with the Earth, Sun, and Moon perfectly aligned, completely blocking direct sunlight.



## **Blood Moon**

- A Blood Moon refers to the reddish or coppery appearance of the Moon and occurs only during total lunar eclipses, which take place two to three times a year.
- During total lunar eclipses, the Earth blocks direct sunlight from reaching the Moon.
  - However, sunlight passes through Earth's atmosphere, where it is bent (refraction) and scattered.
  - The **blue wavelengths** of light are scattered away, while the **red and orange wavelengths** pass through and fall on the Moon's surface.
  - This gives the Moon its distinctive deep red or reddish-orange colour.



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