

Types of Solar Eclipses

Partial



Annular



Total

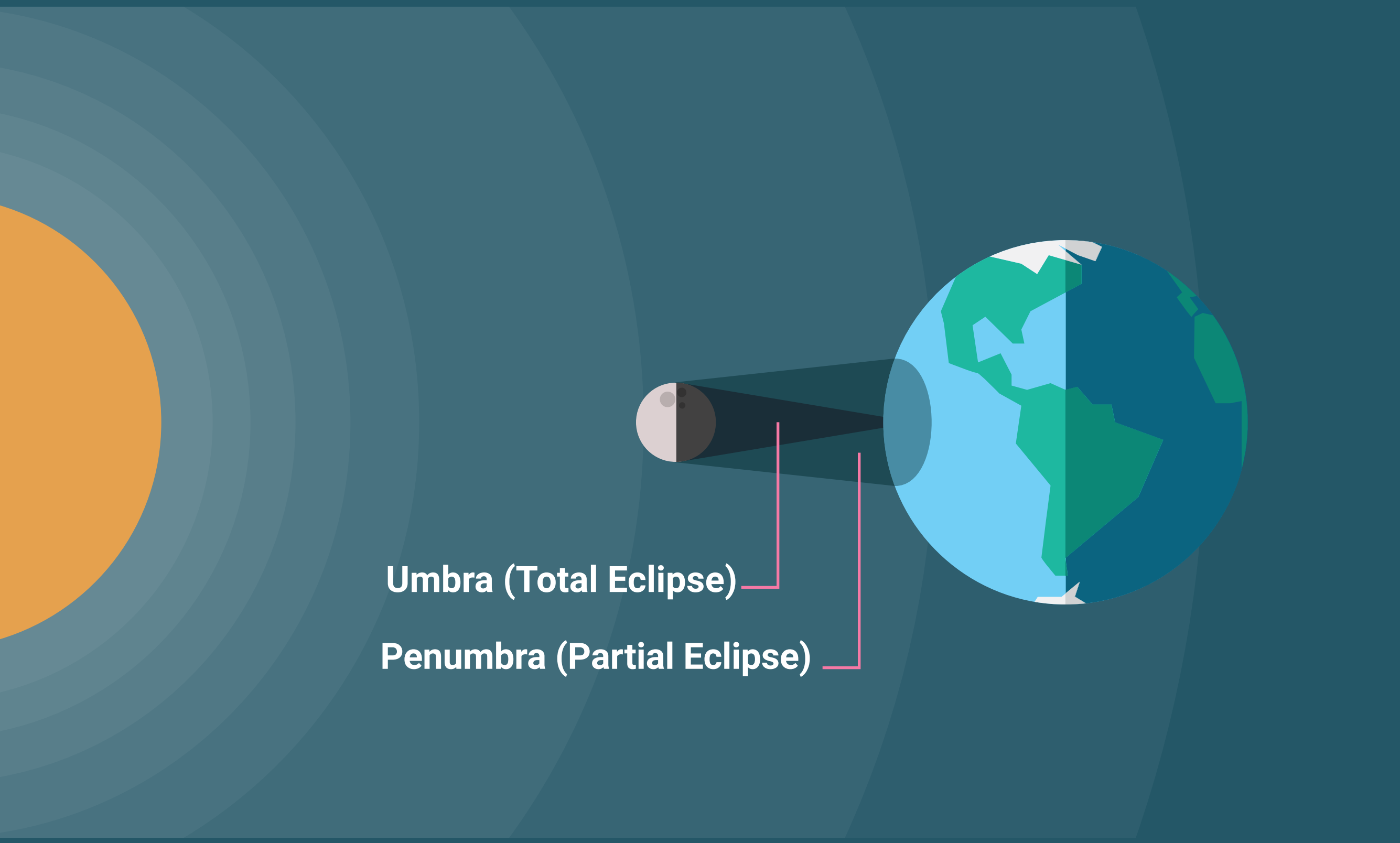


Solar Eclipses happen during a New Moon, when the Moon moves between the Earth and the Sun and the three celestial bodies form a straight line or almost a straight line: Earth - Moon - Sun.

There are 3 kinds of Solar Eclipses. There is also a rare hybrid that is a combination of two eclipses.

To scale

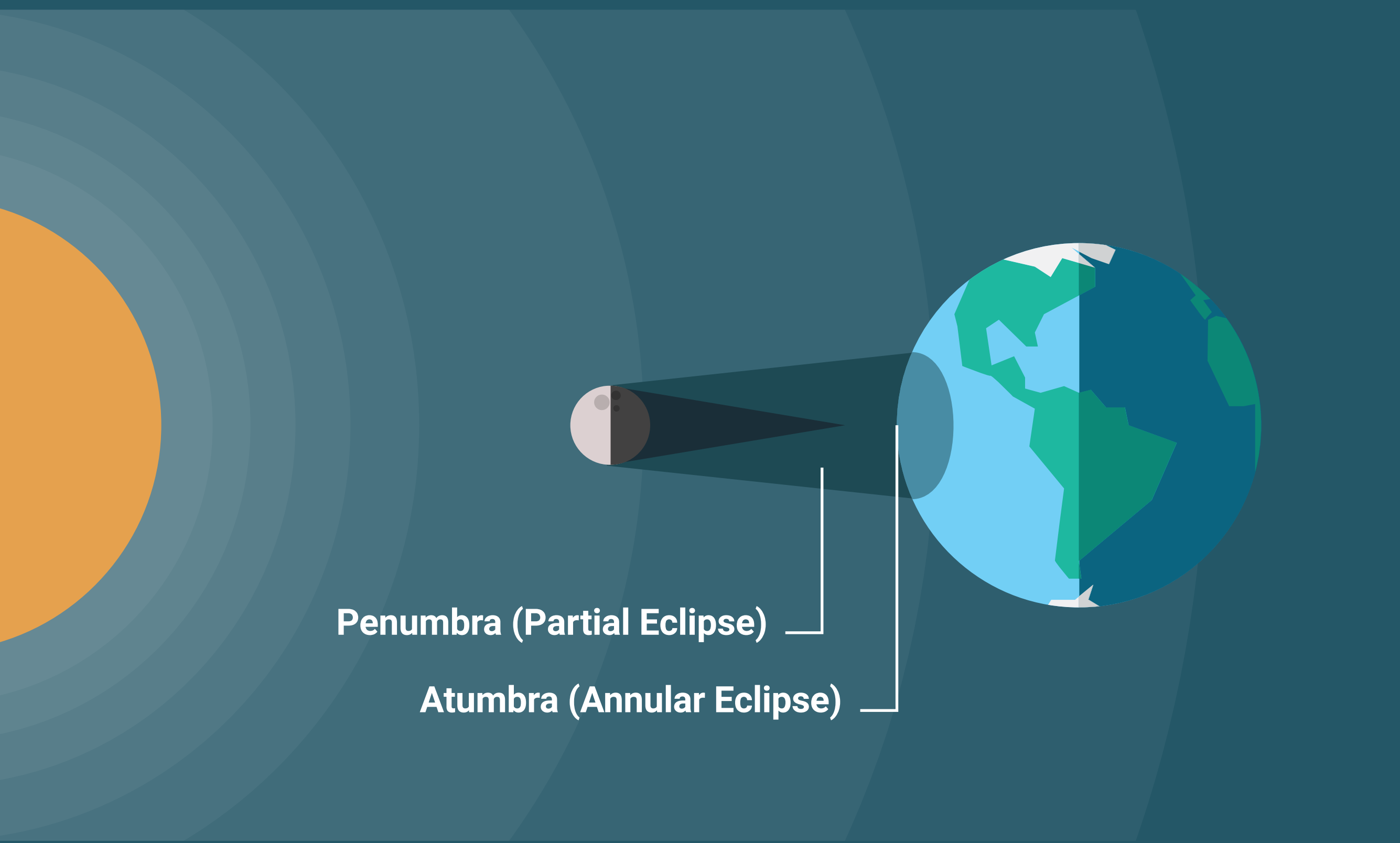
MOON



Umbra (Total Eclipse)
Penumbra (Partial Eclipse)

Total Solar Eclipse

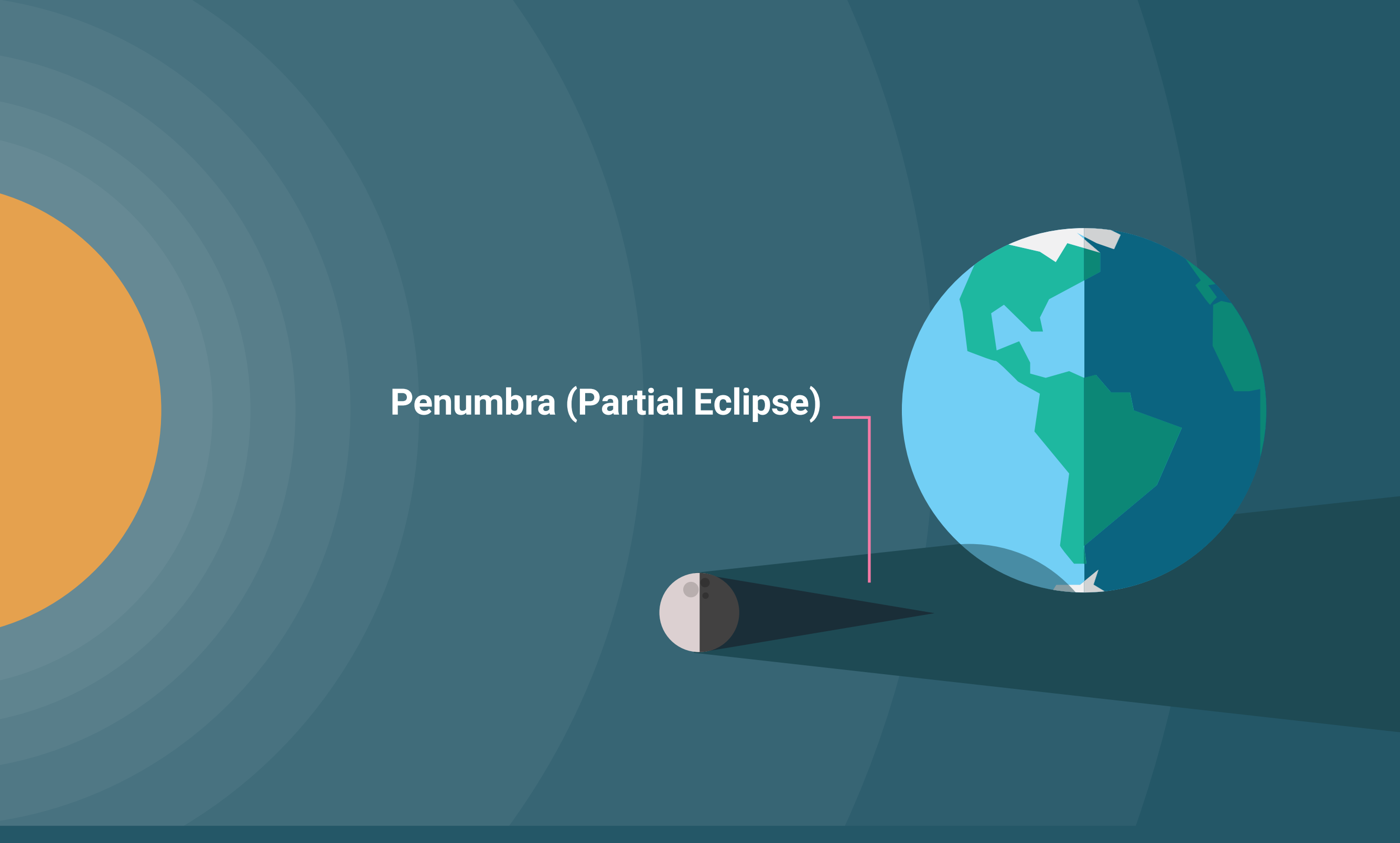
Total Solar Eclipses occur when the Moon comes between the Sun and the Earth and casts the darkest part of its shadow (the Umbra) on Earth. The darkest point of the eclipse is almost as dark as night.



Penumbra (Partial Eclipse)
Antumbra (Annular Eclipse)

Annular Solar Eclipse

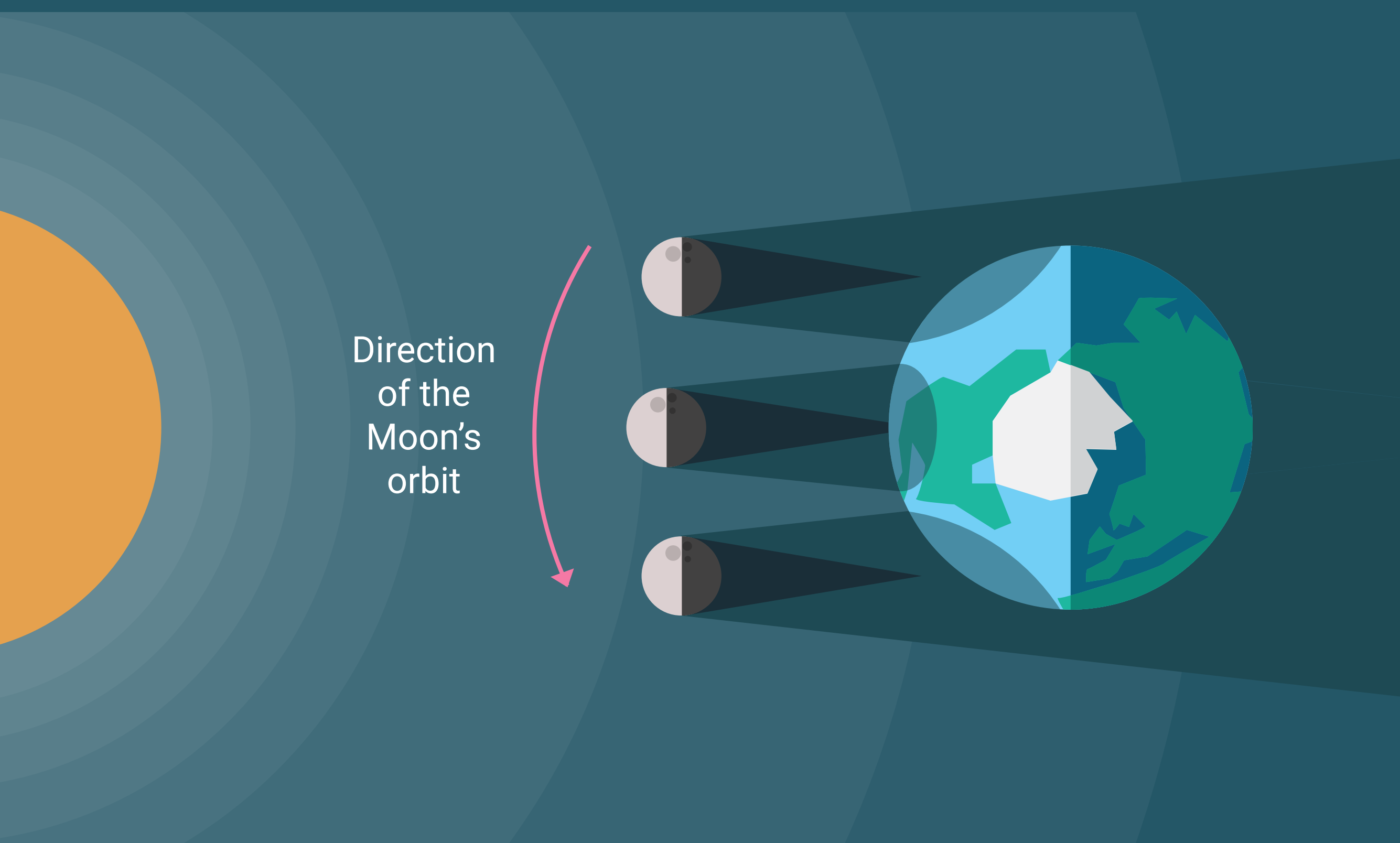
An Annular Solar eclipse happens when the Moon covers the Sun's center, leaving the Sun's visible outer edges to form a "ring of fire" or annulus around the Moon.



Penumbra (Partial Eclipse)

Partial Solar Eclipse

Partial Solar Eclipses happen when the Moon comes between the Sun and the Earth, but they don't align in a perfectly straight line. Because of this, the Moon only partially covers the Sun's disc.



Direction of the Moon's orbit

Hybrid Solar Eclipse

A Hybrid Solar Eclipse is a rare form of Solar Eclipse, which changes from an Annular to a Total Solar Eclipse along its path.

Note: Illustrations are not to scale.



EARTH