

STARS AND CONSTELLATIONS



WHAT IS A STAR?

- A star is any object that is sufficiently massive and can ignite the fusion of elements in its core due to the gravitational pressures inside the object itself.
- All stars begin from clouds of cold molecular hydrogen that gravitationally collapse. As they cloud collapses, it fragments into many pieces that will go on to form individual stars.
- Depending on the temperature of the stars, the color of the stars can range from red to white to blue. Stars with surface temperatures less than 3,500 Kelvin are red, stars with surface temperatures around 6,000 Kelvin are white and stars with surface temperatures above 12,000 Kelvin are blue.



SOME UNIQUE STARS

PSR J18410500

The star that likes to
take a break every once
in a while!

PSR J17191438B

The star that turned
another star into a
diamond!

METHUSELAH STAR

The star that's older
than the Universe!

SOME UNIQUE STARS

VEGA
The star
that's squashed!

IPFT14HIS
The star that
doesn't die!

HE 04375439
The star that is a
speed demon!

ALL ABOUT CONSTELLATIONS

- A constellation is an area on the celestial sphere in which a group of visible stars forms a perceived outline that typically represents an animal, mythological person, mythological creature or inanimate object.
- Constellations allowed the early people to organize the night sky into recognizable forms. This helped them to measure time, predict the farming seasons, conduct the religious studies of the celestial heavens etc.
- In the sky, the stars of constellations can appear near each other, but they usually lie far away from one another.
- Since each star has its own independent motion, all constellations will change slowly over time because familiar outlines will become quite unrecognizable.
- Not all constellations are visible from any one point on the Earth as the visibility depends on the seasons as well as the hemispheres. For example: In the northern hemisphere, Leo is a spring constellation, Orion is a winter constellation and Pegasus is an autumn constellation.



SOME FAMOUS CONSTELLATIONS



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CONSTELLATIONS AND ZODIACS

What is zodiac?

How is one's
zodiac sign
determined?

How many
zodiac signs are
there in total?

Why are all
constellations
not zodiac
constellations?



ASSIGNMENT

- Choose from the following topics:
 - What is your zodiac sign? Does your personality match your zodiac personality?
 - If you discovered a star, what would you name it and why?
- Submit the assignment by Monday evening.

