

FACTSHEET

STARS

- The Earth is surrounded by stars. When there are no clouds in our night sky, we can see the stars clearly.
- The Sun is actually a star. The reason it looks so different is because it is so close to us.
- We can see patterns in the stars. Different civilizations saw different patterns and they thought they related to their gods.
- In the southern hemisphere (Antarctica, parts of Africa and Asia, Australia, most of Southern America), you will find the following constellations:
 - Aquarius (the Water-Bearer)
 - Orion (the Hunter)
 - Scorpio (the Scorpion)
 - Southern Cross
 - Hydra (Water Snake)
 - Libra (Scales)
- In the northern hemisphere (Europe, 2/3 of Africa north of the Congo River, North America, Central America, small part of South America north of the Amazon River, Asia, although Indonesia is primarily in the southern hemisphere), you will find the following constellations:
 - Pegasus
 - Perseus
 - Pole star
 - Plough (or Little Bear)
 - Great Bear
 - Leo (the Lion)
- Stars look small but they are in fact huge balls of hot gas. They look small because they are so far away.
- Stars would be just like our Sun if you were close to them.
- Galaxies are made up of billions of stars. On a clear night we can see part of our galaxy. It is known as the Milky Way.
- There are billions of galaxies in space, each made up of billions of individual stars.
- Galaxies are grouped into clusters, groups of clusters are known as super clusters.
- All the galaxies, clusters of galaxies and super clusters together make up our universe.
- A shooting star is really smaller pieces of dust from space. They are known as meteoroids. Some of these are quite small, as small as a grain of sand, but others are quite big. They are travelling so fast that as they pass through the Earth's atmosphere they burn up as they fall to Earth, but some are too big to burn and cause damage when they land on Earth. A hundred years ago a meteor landed in Siberia and exploded like an atomic bomb.
- When a star comes to the end of its life, it can explode. Supernovae are the biggest explosions in the universe.
- Once a star has exploded as a supernova, the bit that is left shrinks quickly. If it is big, it shrinks to almost nothing. The area of space that is left has enormous gravity. This gravity sucks in any other nearby material, including other stars. This is known as a black hole.
- Black holes are called black holes because gravity is so strong not even light can escape from it.
- Stars come in different colours. The colour is related to the temperature of the star. Hot stars are blue. Cooler stars are red. Hot stars can be 30,000°C. Cooler stars are as little as 1000°C.
- The temperature of a star is related to its mass.
- The solar system includes the following:
 - the Sun
 - the inner planets – Mercury, Venus, Earth, Mars
 - the outer planets – Jupiter, Saturn, Uranus, Neptune
 - the dwarf planets – Pluto, Eris, Ceres
 - small solar system bodies – asteroids, comets, meteors and meteorites, near Earth objects



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