

Astonishing Astronomy

How Many?!

Humans can see about 3,000 stars. There are about 100—400 billion stars in the Milky Way galaxy. If you counted 1 a second, it would take over 3,000—12,000 years to count them all.

It would take 100,000 years to cross the Milky Way if you were travelling at the speed of light. (But you can't travel at the speed of light. Light travels at 300,000 km per second. That's 186,000 miles per second. That's 671 million miles per hour.)

There are hundreds of billions of galaxies in the Universe. Andromeda is the nearest to our Milky Way.

The Interstellar 'Time Machine'

When we look at a star in space, we are looking at it in the past, because it takes so long for the light from that star to reach us across the distance. Sunlight takes about 8 minutes and 17 seconds to travel from the Sun to the Earth – and the Sun is REALLY NEAR in space terms!

The planets and moons of our Solar System formed about 4.6 billion years ago.

The Universe is nearly 14 billion years old, by current scientific calculations.

Scientists believe that the Universe we can see is only one part of the Universe and that some is so far away that we still haven't seen it. The light from some parts of the Universe haven't had time to reach us, even travelling at 6 trillion miles a year for 14 billion years.

A Martian High Point

The Olympus Mons volcano on Mars is over 27km (16 miles) high – over 3 times as tall as Mount Everest.

Smaller- but Bigger!

Stellar black holes are the most common type of medium-sized black hole. A stellar black hole can be up to 20 times greater than the mass of our Sun and can fit inside a ball with a diameter of about 10 miles. Dozens of stellar mass black holes may exist within the Milky Way galaxy.

Supermassive black holes are the biggest black holes, like Sagittarius, which scientists believe is at the centre of our Milky Way galaxy. Scientists believe this black hole is about as big as our Sun, but 4 million times as dense.

