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SUPER BLUE BLOOD MOON and THE DARK SIDE OF THE MOON
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On 31 Jan 2018, our celestial neighbour shared with us the unique and rare occurrence of Combining a blue moon, a super moon and a total eclipse, the rare spectacle has been called a "super blue blood moon" by the National Aeronautics and Space Administration (NASA) and last happened 152 years ago in 1866.

DID YOU MISS IT?

1. What is a SUPER moon?

Supermoons happen when a full moon approximately coincides with the moon's perigee, or a point in its orbit at which it is closest to Earth. This makes the moon appear up to 14 percent larger and 30 percent brighter than usual. While the moon's average distance is 238,000 miles (382,900 km) from Earth, its orbit isn't perfectly circular, so that distance varies a small amount. It occurs as possible to 12 or 13 full (or new) moons each year, usually three or four may be classified as supermoons, as commonly defined.

The most recent supermoon occurred on January 31, 2018, and the next (full) one will be on December 22, 2018. The one on November 14, 2016 was the closest supermoon since January 26, 1948, and will not be surpassed until November 25, 2034.[6] The closest supermoon of the 21st century will occur on December 6, 2052.

2. “Once in a BLUE moon”, what it means?

When you hear someone say "Once in a Blue Moon..." you know what they mean: Rare. Seldom. Maybe even absurd. Very rarely, a monthly Blue Moon (second of two full moons in one calendar month) and a seasonal Blue Moon (third of four full moons in one season) can occur in the same calendar year. But for this to happen, you need 13 full moons in one calendar year and 13 full moons in between successive December solstices.

The idea of a Blue Moon as the second full moon in a month stemmed from the March 1946 issue of Sky and Telescope magazine, which contained an

article called “Once in a Blue Moon” by James Hugh Pruett. Pruett was referring to the 1937 Maine Farmer’s Almanac, but he inadvertently simplified the definition. He wrote:

Seven times in 19 years there were — and still are — 13 full moons in a year. This gives 11 months with one full moon each and one with two. This second in a month, so it, was called Blue Moon.

James Hugh Pruett looked at the actual date of the 1937 Blue Moon, he would have found that it had occurred August 21, 1937. Also, there were only 12 full moons in 1937. You need 13 full moons in one calendar year to have two full moons in one calendar month. However, that fortuitous oversight gave birth to a new and perfectly understandable definition for Blue Moon.

3. BLOOD moon; What happens to the moon?
Blood moon actually happens between two and four times a year — every time there's a lunar eclipse. When the moon passes into the Earth's shadow, it turns a rusty shade of red. But if it's cast in shadow, then why can we see it at all?
The answer is Earth's atmosphere. The air you breathe extends about 50 miles above the ground, forming a kind of atmospheric halo. Normally when sunlight shines directly through the atmosphere, air molecules scatter the short-wave blue light and make the sky appear blue.

The sky turns red at sunset because the sun being lower on the horizon forces its light to travel through more of our atmosphere, scattering and re-scattering the blue light until mostly long-wave red light comes through.

A blood moon, then, is sort of like a moon watching a sunset. When the Earth fully blocks the sunlight on its path to the moon, the little light that does get through travels through a whole lot of atmosphere. The atmosphere scatters the blue light and sends only the red light the moon's way. A blood moon can also happen when there's a lot of smoke or other haze in the air since that can scatter blue light in the same way.

4. The Dark Side of the Moon – Where and what?

Have you noticed that when you look up at the moon, you always see the same features? You can see craters and patches of different colors. With a pair of binoculars or a telescope, you can make out even more detail. But no matter how you look at the moon, you're always seeing the same landscape. What's on the other side of the moon?

Many people use the phrase "the dark side of the moon" to describe something mysterious and unknown. The dark side of the moon is supposed to be the side we never see, the side that faces away from Earth. This side of the moon faces the cold, black expanse of space. What could be on this side of the moon? What are conditions like there? Is it really always dark?

Some astronomers grimace or roll their eyes when they hear someone talk about the dark side of the moon (unless they're also Pink Floyd fans). The popularity of the phrase means that there's ample

opportunity for people to jump to the wrong conclusion. Part of the problem is the fact that we always see the same side of the moon. Another part concerns a general misunderstanding regarding the cause of the phases of the moon. But mostly, it's a problem with terminology.

This isn't a hard problem to fix, though. We just need to take a closer look at how the moon moves through space. But first, let's deal with the terminology. There are several terms we can use instead of the dark side of the moon that are much less confusing.

So what exactly is the dark side of the moon, and why is it a misleading phrase?

Continued with this link: https://science.howstuffworks.com/dark-side-of-moon1.htm

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Power Words

Perigee: The point in the orbit of the moon or a satellite at which it is nearest to the earth.

Total lunar eclipse: A lunar eclipse occurs when the Moon passes directly behind Earth and into its shadow.

Article adapted from:
https://en.wikipedia.org/wiki/Supermoon
https://curiosity.com/topics/heres-why-the-lunar-eclipse-creates-a-blood-moon-curiosity?utm_source=androidapp
https://science.howstuffworks.com/dark-side-of-moon.htm

video: https://www.youtube.com/watch?v=IrydklNpcFI