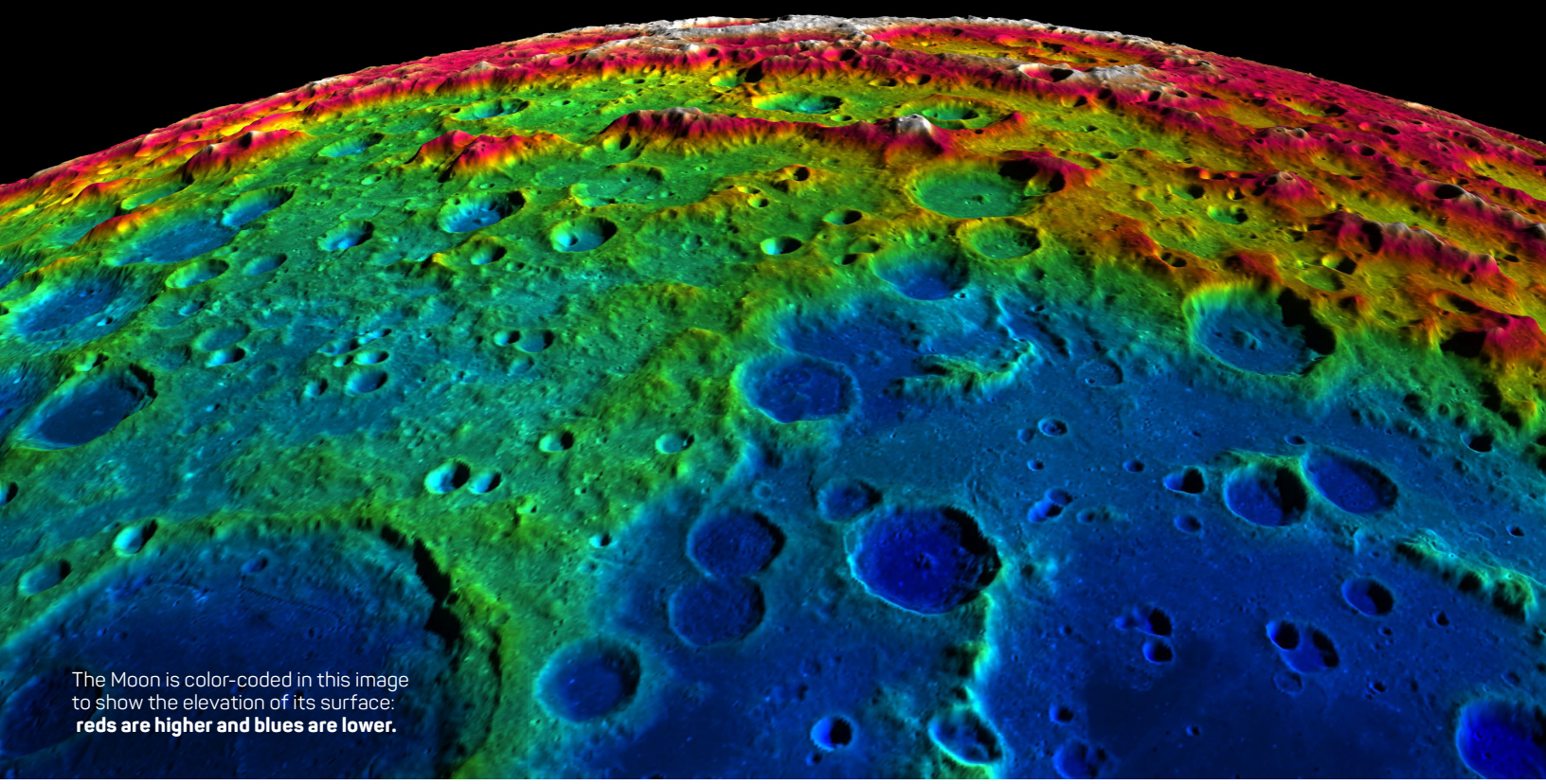
The Colors of Astronomy

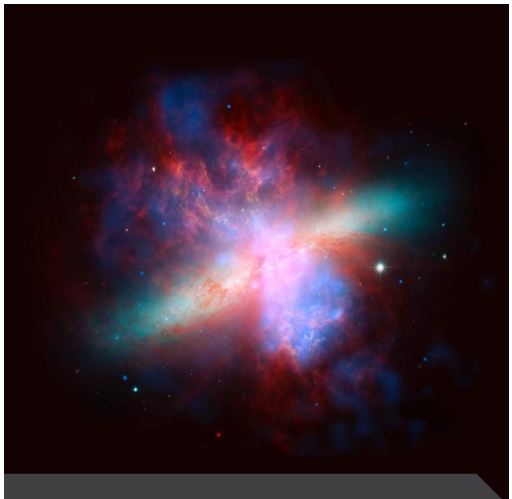
Scientists assign colors to astronomical images to convey more information.



The Moon is color-coded in this image to show the elevation of its surface: **reds are higher and blues are lower.**

Our eyes only see visible light, but there's a lot more out there. There's also ultraviolet, infrared, microwaves, and X-rays, for instance. When scientists record information about space objects, they often capture many different energies of light that humans can't see. They might also measure quantities like temperature, magnetic field strength, and elevation. In order to show these types of data, scientists use *representational color*. That means creating images with colors that represent information other than visible light. These representational color images help scientists highlight and pay attention to certain features we normally could not perceive.

LEARN MORE:
astronomerswithoutborders.org/gam2019-news/gam-2019-blog/4928



An image of the M82 galaxy using representational color shows X-rays recorded by NASA's Chandra Observatory in blue and infrared light recorded by NASA's Spitzer Telescope in red. Our eyes can't see X-rays or infrared light without special equipment.