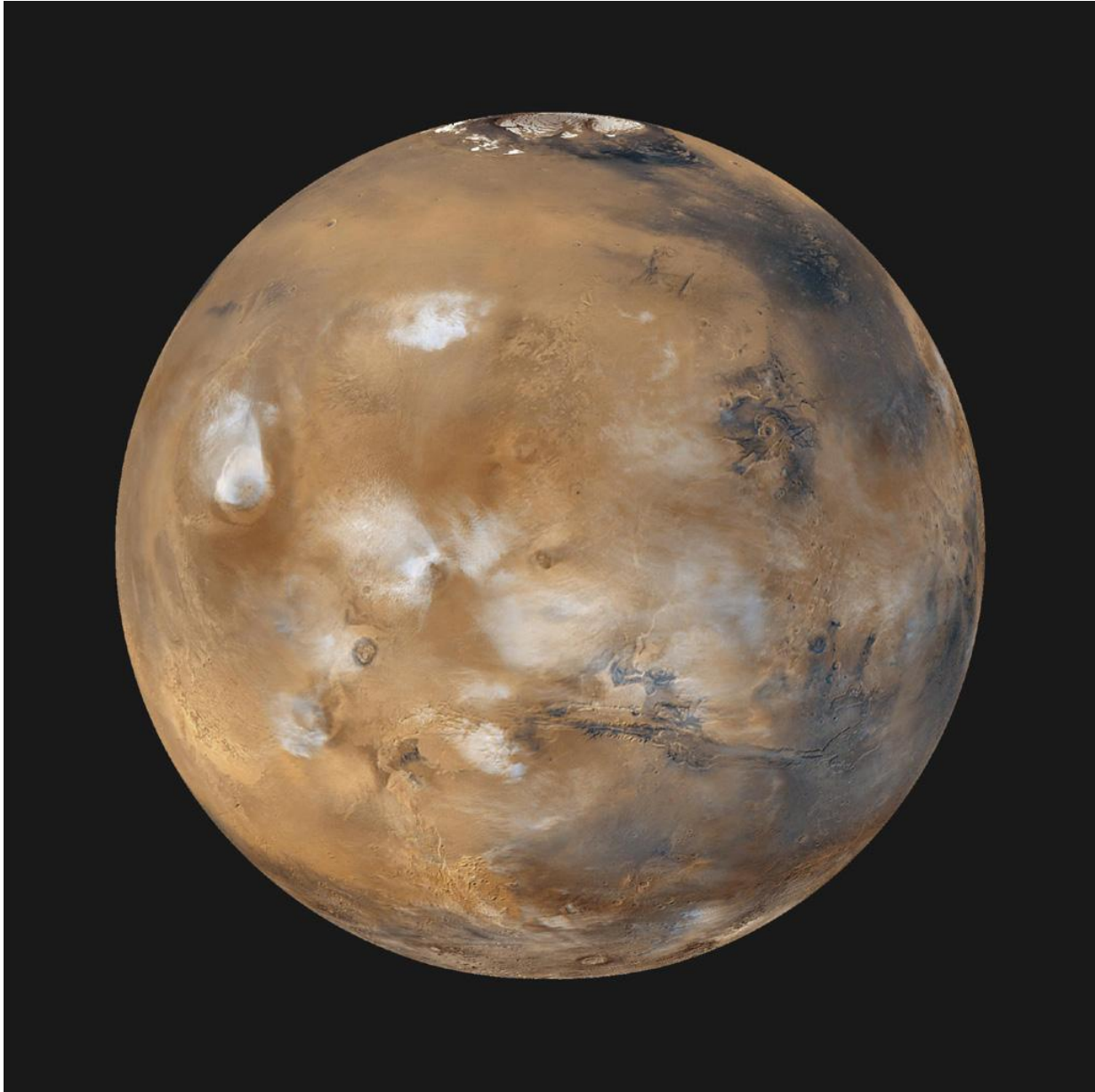


7.10: Planet Mars



Mars – note the polar cap (top), cloudsPublic Domain | Image courtesy of NASA.

Mars is the fourth planet from the Sun. It is historically called the **Red Planet** because of its reddish appearance in Earth's night sky. Mars has some Earth-type characteristics, such as Polar Caps, clouds, and water in at least the ice or solid phase. It was very active volcanically at one time. Numerous spacecraft have successfully explored Mars from orbit and the surface. It is by far the most-visited planet (by spacecraft) in our Solar System, besides Earth.

Differences between Martian North and South Polar Caps

North Polar Cap:

- Primarily composed of water ice, H₂O
- Size of Greenland
- Seasonal
- Goes through a variety of change

South Polar Cap:

- Primarily composed of carbon dioxide ice, CO₂
- 1/10 the size of the North Polar Cap
- Always there
- On one side of Pole

The differences in the Martian polar caps are probably due to different polar climates. It's important to note that Earth's Polar Caps are also different; the North Pole is floating ice versus the South Pole as a continent.

This page titled [7.10: Planet Mars](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Lumen Learning](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.