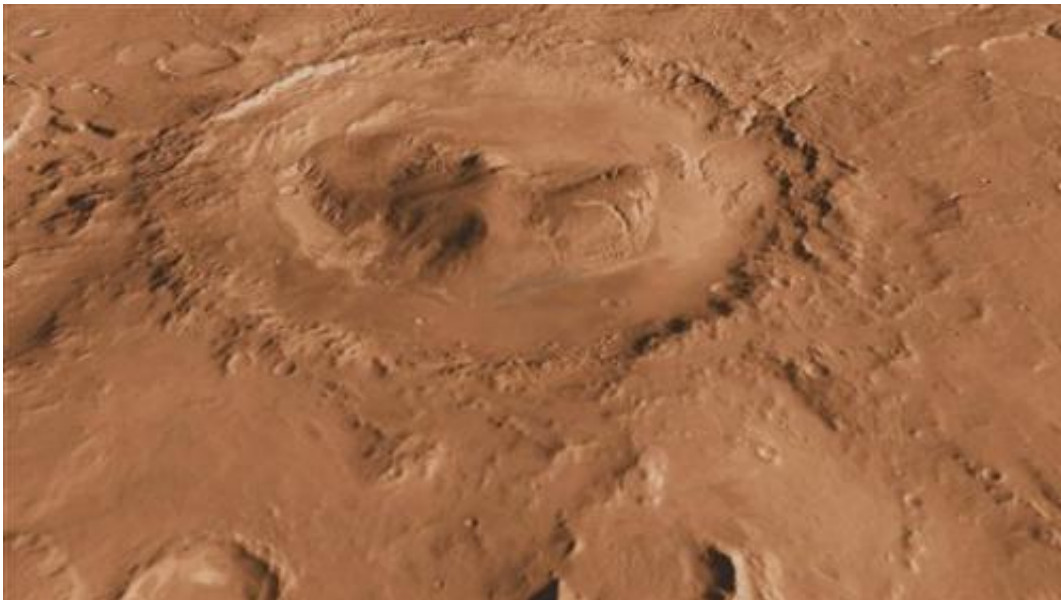


New Mars rover to land in intriguing giant crater

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This undated image made available by NASA shows Mars' Gale Crater, looking south. The formation is 96 miles (154 kilometers) in diameter and holds a layered mountain rising about 3 miles (5 kilometers) above the crater floor. (AP Photo/NASA)

The latest Mars destination is a giant crater near the equator with an odd feature: a mountain rising from the crater floor.

How did it get there?

Gale Crater was gouged by a [meteor impact](#) more than 3 billion years

ago. Over time, scientists believe sediments filled in the 96-mile (155-kilometer)-wide crater and winds sculpted the 3-mile (4.8-kilometer)-high mountain, called [Mount Sharp](#).

Mount Sharp's stack of [rock layers](#) can be read like pages in a storybook with older deposits at the base and more recent material the higher up you go, providing a record of Mars history through time.

Images from space reveal signs of water in the lower layers of the mountain, including mineral signatures of clays and sulfate salts, which form in the presence of water. Life as we know it needs more than just water. It also needs nutrients and energy.

During its two-year mission, the NASA rover Curiosity will trek to the lower flanks of the mountain in search of the carbon-based building blocks of life.

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