900,000,000 years ago

1,000,000,000 years ago

1,100,000,000 years ago

1,200,000,000 years ago

1,300,000,000 years ago

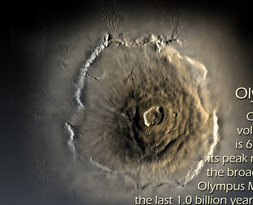
1,400,000,000 years ago

1,500,000,000 years ago

1,600,000,000 years ago

Longer Days, More Distant Moon

The length of our Earth day has increased through time. Approximately 900 million years ago, each day was about 18 hours long. By 370 million years ago, the day was 22 hours long. Today, of course, Earth experiences a 24-hour day. The drag of the tides, caused by the gravitational pull of our Moon, slows Earth's rotation.

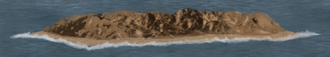


Olympus Mons, Mars

Olympus Mons, the tallest volcano in our solar system, is 600 kilometers across and its peak rises 22 kilometers above the broad plateau surrounding it. Olympus Mons first erupted during the last 1.0 billion years. Some lava flows are so fresh that they might be younger than 1.0 million years.

Volcanism Ends on Mercury

Widespread effusive volcanism on Mercury ended relatively early in the planet's history, about 3.5 billion years ago. However, some volcanic activity persisted until at least the last second-half of solar system history. The youngest volcanic material is found within the central-peak ring of the 290-kilometer diameter Rachmaninoff basin.

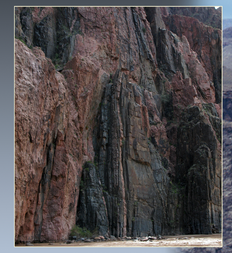


Meteorites from Mars

A few meteorites that have been found on Earth actually came from Mars. These rare samples provide scientists with information about the martian environment and history. Martian meteorites are between 4.5 billion and 180 million years old. This specimen cooled from a lava flow on Mars about 1.3 billion years ago.

The Oldest Rocks in the Grand Canyon

Unlike Valles Marineris on Mars, the Grand Canyon was carved by river action. In the last 10 million years or so, the Colorado River has cut a 1.5-kilometer-deep channel into Earth's crust, slicing through almost 1.5 billion years of geologic history. The oldest rocks are exposed at the bottom of the Grand Canyon, providing geologists with evidence of ancient environments and events.



900 million years ago | 1000 million years ago | 1100 million years ago | 1200 million years ago | 1300 million years ago | 1400 million years ago | 1500 million years ago | 1600 million years ago

Proterozoic

PRECAMBRIAN