- **Early in its history, the Moon was melted to great depths to form a "magma ocean."** The lunar highlands contain the remnants of early, low-density rocks that floated to the surface of the magma ocean. The lunar highlands were formed about 4.4-4.6 billion years ago by flotation of an early, feldspar-rich crust on a magma ocean that covered the Moon to a depth of many tens of kilometers or more. Innumerable meteorite impacts through geologic time reduced much of the ancient crust to arcuate mountain ranges between basins.

- **The lunar magma ocean was followed by a series of huge asteroid impacts that created basins that were later filled by lava flows.** The large, dark basins such as Mare Imbrium are gigantic impact craters, formed early in lunar history, that were later filled by lava flows about 3.2-3.9 billion years ago. Lunar volcanism occurred mostly as lava floods that spread horizontally; volcanic fire fountains produced deposits of orange and emerald-green glass beads.