

How Moons Change

Instructions: Below are several **causes** related to moons' geology and environment, along with possible **effects** on their surfaces. Your task is to **draw a line** between each cause and its correct effect, or write the matching letter next to each cause. One extra effect is included that does not have a match.

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| 1. Large asteroid impacts on Callisto | A. Water vapor and ice particles are shot into space from surface fissures. |
| 2. Tidal heating on Io caused by Jupiter's gravity | B. Surface becomes covered in extensive lava flows, creating bright sulfur deposits. |
| 3. Subsurface ocean movement beneath Europa's ice shell | C. Heavy cratered surface remains largely unchanged for billions of years. |
| 4. Cryovolcanic eruptions on Enceladus | D. Cracks and ridges form on the icy surface. |
| 5. Ancient volcanic eruptions on Earth's Moon | E. Surface shows smooth plains of cooled basalt rock in darker areas (lunar maria). |
| 6. Triton's retrograde orbit causing surface stress | F. Fault lines and fractures form from gravitational stress. |
| | G. Methane rain fills rivers and lakes. |
| | (Extra) |

