

The Solar System

Section 6: Is There Life Beyond Earth?

Guide For Reading: What conditions do living things need to exist on Earth?

- Earth has liquid water and a suitable temperature range and atmosphere for living things to survive.

Checkpoint: What are some characteristics of all living things?

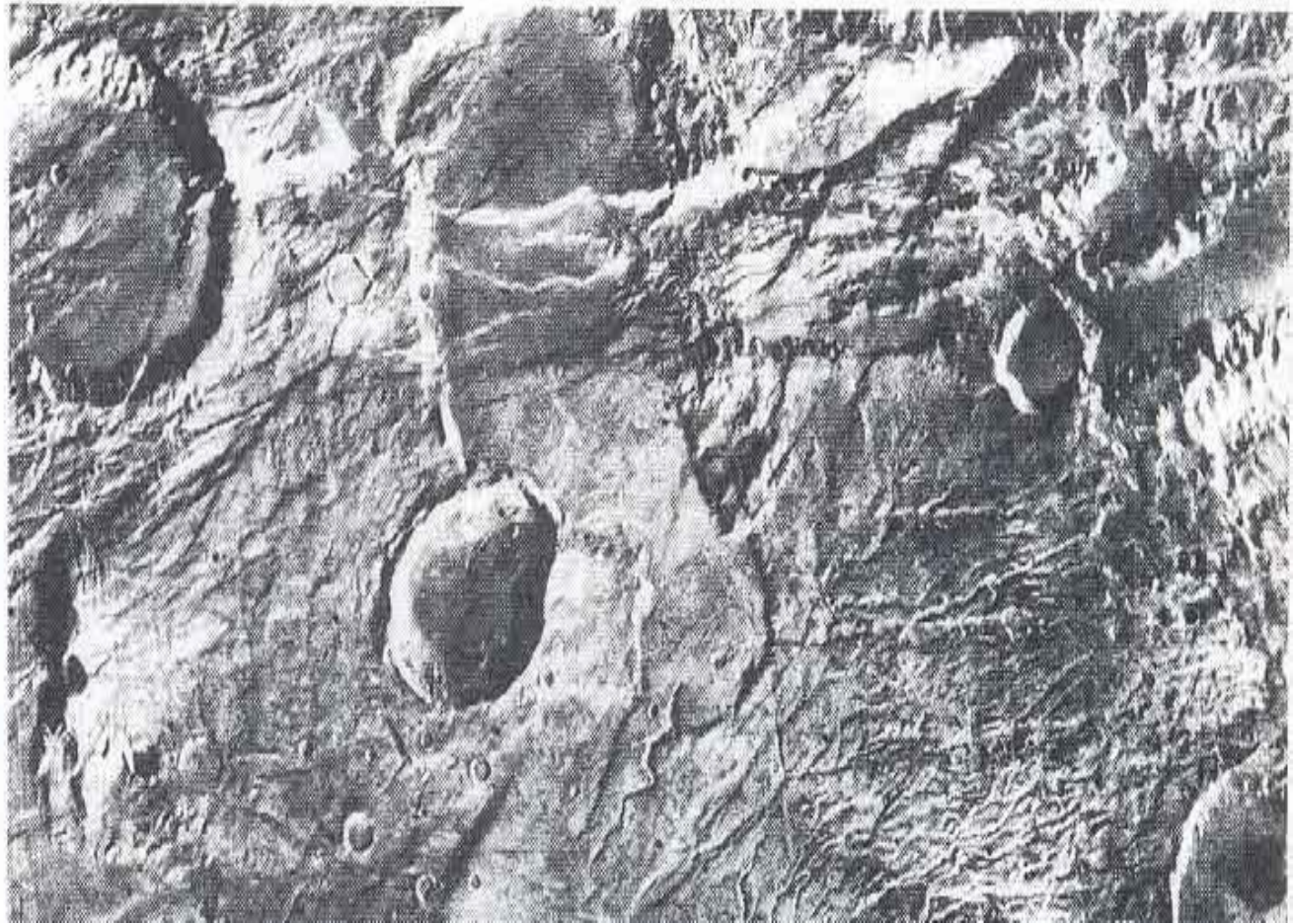
- Living things are made up of one or more cells, take in energy and use it to grow and develop, reproduce, and give off waste.

Guide For Reading: Why do scientists think Mars and Europa are good places to look for signs of life?

- **Mars**: Surface has stream like beds with crisscrossing patterns. Because of this scientists believe that water **may** have been present on Mars. **Since life as we know it requires water, scientists hypothesize that Mars may have once had the conditions needed for life to exist.**

Figure 33 These patterns on the surface of Mars are probably evidence that liquid water once flowed on Mars.

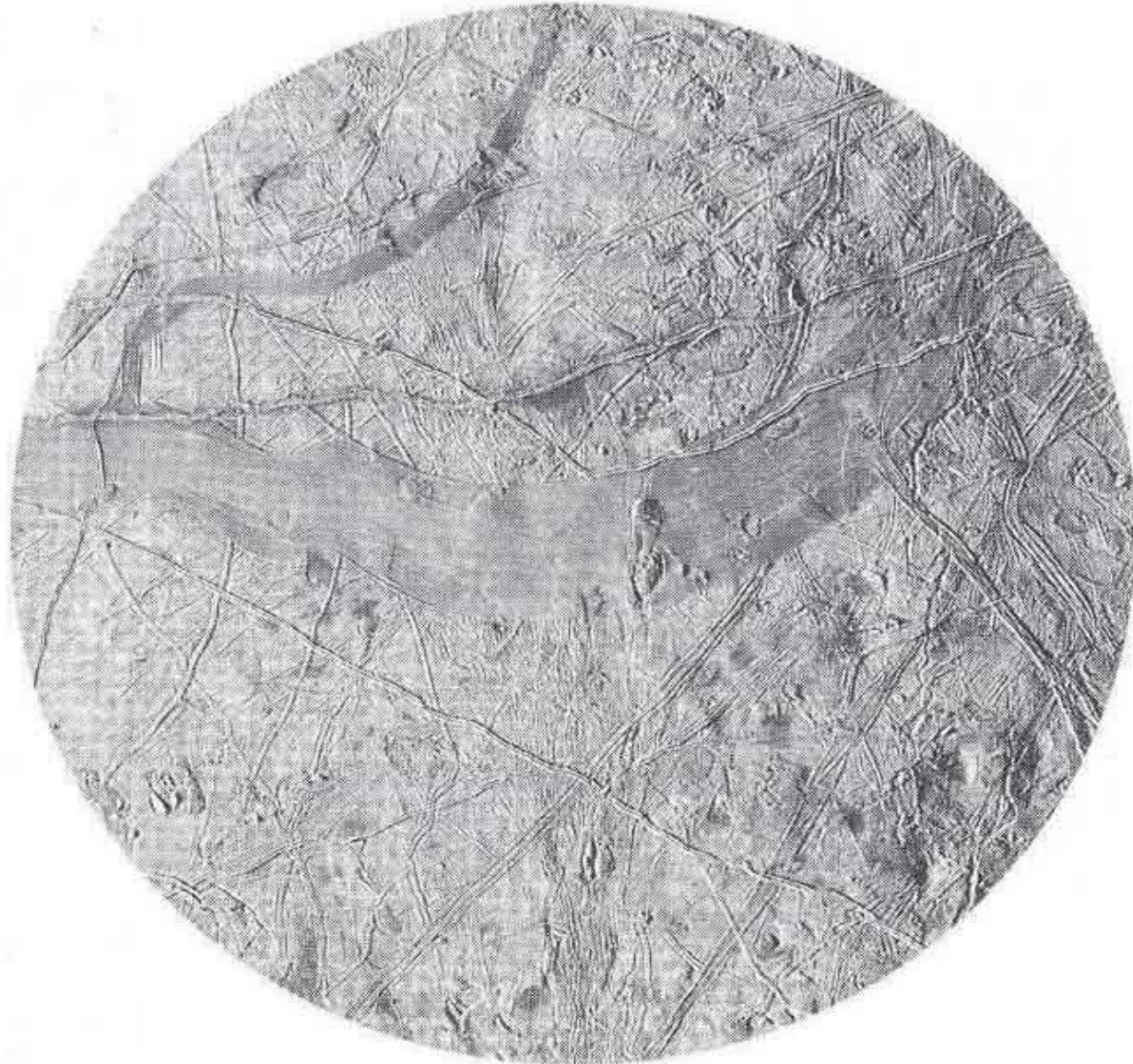
Applying Concepts Why does this evidence make it more likely that there may once have been life on Mars?



Guide For Reading: Why do scientists think Mars and Europa are good places to look for signs of life? (Continued)

- **Europa**: Ice has broken up and re-formed, resulting in twisted, house-sized blocks of ice. These blocks resemble ice crust over Earth's Arctic Ocean. **If there is liquid water on Europa, there might also be life.**

Figure 34 Europa is covered with a layer of ice similar to the ice covering Earth's Arctic Ocean. There may be liquid water under the ice.



Checkpoint: What evidence shows that there may once have been running water on Mars?

- Regions on the surface of Mars that look like stream beds with crisscrossing paths of water.