

Name _____

Hunting for Alien Life: Are We Alone in the Universe?

Short Answer Key

1. Three essential conditions for life as we know it are liquid water, an energy source, and carbon-based chemistry.
2. Mars is considered a prime target in the search for life because it has evidence of ancient riverbeds and the possibility of subsurface water, making it a potential habitat for microbes.
3. The "habitable zone" is the region around a star where conditions might be right for liquid water to exist. This is significant in the search for extraterrestrial life because water is essential for life as we know it, and this zone represents a potential location where life-sustaining conditions could exist.
4. Scientists search for extraterrestrial intelligence (SETI) by listening for radio signals from advanced civilizations. They use radio telescopes to scan the cosmos for artificial signals that might indicate the presence of intelligent beings.
5. The Fermi Paradox raises the question of why we haven't found any signs of intelligent life despite the suitable conditions for life in the universe.

