**Abstract for NASA’s Kepler Mission Discovers Bigger, Older Cousin to Earth:**

The abstract highlights Kepler-452b, a newly discovered Earth-like exoplanet orbiting within the habitable zone of its parent star, Kepler-452. This zone, often referred to as the "Goldilocks" zone, offers conditions suitable for liquid water to exist on the planet's surface, raising the potential for life. Utilizing data from NASA's Kepler mission, scientists have confirmed Kepler-452b as the first near-Earth-size planet within the habitable zone of a star similar to our Sun. Despite being 60 percent larger than Earth, Kepler-452b's geological composition and potential for harboring life remain uncertain, although it is thought to have a rocky surface. With stellar aging, stars expand, become hotter, and radiate brighter light. Its orbit closely resembles Earth's, completing one revolution every 385 days around its G2-type star. Kepler-452, 1.5 billion years older than the Sun, exhibits similar characteristics but is 20 percent brighter and 10 percent larger in diameter. The system, located 1,400 light-years away in the Cygnus constellation, provides valuable insights into planetary evolution and the potential for habitable worlds beyond our solar system.

**Intermediate Concept List:**

1. Exoplanet: Kepler-452b

2. Parent star: Kepler-452

3. Habitable zone: "Goldilocks" zone

4. Liquid water

5. Potential for life

6. NASA's Kepler mission

7. Near-Earth-size planet

8. Geological composition

9. Rocky surface

10. Stellar aging

11. G2-type star

12. Orbital period

13. Planetary evolution

14. Solar system comparison

15. Cygnus constellation

16. Distance: 1,400 light-years

**References:**

NASA STI Program. NASA Thesaurus. Washington, DC: National Aeronautics and Space Administration, 2012. SKOS.

“NASA’s Kepler Mission Discovers Bigger, Older Cousin to Earth.” *NASA*, NASA, 26 July 2023, www.nasa.gov/news-release/nasas-kepler-mission-discovers-bigger-older-cousin-to-earth/.