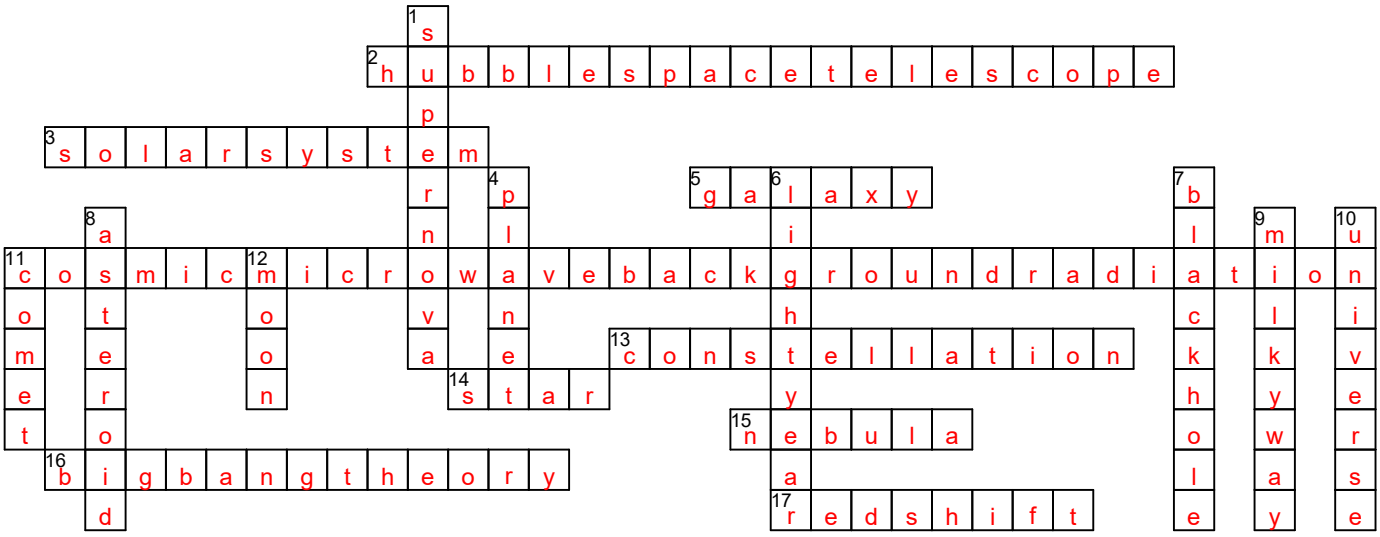
Space Systems Crossword Puzzle

1. *Using the Across and Down clues, write the correct answer in the numbered grid below.*



ACROSS

2. Space observatory orbiting Earth, providing valuable data and images of distant galaxies and cosmic phenomena.
3. Collection of planets, moons, asteroids, and comets orbiting around the Sun.
5. Large system of stars, gas, dust, and dark matter held together by gravity.
11. Faint glow of electromagnetic radiation filling the universe, considered a remnant of the Big Bang.
13. Recognizable pattern of stars in the night sky named after mythological figures, animals, or objects.
14. Luminous celestial body consisting of hot gas that generates light and heat through nuclear fusion.
15. Interstellar cloud of dust, hydrogen, helium, and other ionized gases where stars are born.
16. Cosmological model describing the rapid expansion of the universe from a hot, dense state approximately 13.8 billion years ago.
17. Phenomenon where light from distant galaxies is shifted toward longer (redder) wavelengths due to the expansion of the universe.

DOWN

1. Powerful explosion marking the death of a massive star, releasing an immense amount of energy and creating heavy elements.
4. Celestial body that orbits a star, is spherical in shape, and has cleared its orbit of other debris.
6. Unit of astronomical distance equal to the distance light travels in one year, approximately 9.46 trillion kilometers.
7. Region of spacetime where gravity is so strong that nothing, not even light, can escape.
8. Small rocky body orbiting the Sun, found primarily in the asteroid belt between Mars and Jupiter.
9. Spiral galaxy containing our solar system, consisting of billions of stars, dust, and gas.
10. All of space and time and their contents, including galaxies, stars, planets, and cosmic phenomena.
11. Small icy body orbiting the Sun, consisting of dust, rock, and frozen gases that vaporize near the Sun, producing a visible coma and tail.
12. Natural satellite orbiting a planet, reflecting light from the Sun.

cosmic microwave background radiation	moon
black hole	star
constellation	Hubble Space Telescope
nebula	comet
supernova	redshift
Universe	asteroid
solar system	galaxy
Big Bang theory	light-year
Milky Way	planet