

1. Accretion (n.)

Definition (Cambridge Dictionary): The process by which a planet grows larger by attracting more matter (gas, dust, etc.) due to gravity.

Sentence from the article: "The accretion process during the early stages of solar system formation played a crucial role in shaping planetary compositions."

Dictionary example: "The accretion of dust and gas around a young star eventually forms a disk."

My example: The accretion of snow on the mountainside led to an avalanche.

2. Asteroid (n.)

Definition (Merriam-Webster): A small rocky body orbiting the sun.

Sentence from the article: "The mission aims to study the composition of the asteroid and determine its potential threat to Earth."

Dictionary example: "Many asteroids are found in the asteroid belt between Mars and Jupiter."

My example: Scientists believe a large asteroid impact caused the extinction of the dinosaurs.

3. Atmosphere (n.)

Definition (Collins Dictionary): The layer of gases surrounding a planet or moon.

Sentence from the article: "Mars' thin atmosphere makes liquid water impossible on the surface."

Dictionary example: "The Earth's atmosphere protects us from harmful radiation."

My example: The dense atmosphere of Venus traps heat, making it the hottest planet in our solar system.

4. Celestial (adj.)

Definition (Macmillan Dictionary): Relating to the sky or outer space.

Sentence from the article: "The telescope captured stunning images of celestial objects, including distant galaxies and nebulae."

Dictionary example: "Astronomers study celestial bodies like stars and planets."

My example: Ancient civilizations used celestial navigation to guide their journeys.

5. Comet (n.)

Definition (Oxford Learner's Dictionaries): A small body of ice, dust, and gas that orbits the sun and develops a tail as it approaches the sun.

Sentence from the article: "The comet's tail, composed of dust and gas, stretched across the night sky."

Dictionary example: "Halley's Comet is visible from Earth every 76 years."

My example: The unexpected appearance of the comet caused excitement among astronomers.

6. Cosmology (n.)

Definition (Merriam-Webster): The study of the origin, structure, and evolution of the universe.

Sentence from the article: "Modern cosmology seeks to understand the nature of dark matter and dark energy."

Dictionary example: "Cosmology addresses fundamental questions about the universe's beginning and end."

My example: The Big Bang theory is a cornerstone of modern cosmology.

7. Crater (n.)

Definition (Cambridge Dictionary): A large round hole in the ground caused by an explosion or the impact of a meteorite.

Sentence from the article: "The lunar surface is covered with craters of various sizes, evidence of its long history of bombardment."

Dictionary example: "Meteor Crater in Arizona is a popular tourist destination."

My example: The volcanic eruption left a massive crater in the landscape.

8. Eclipse (n.)

Definition (Collins Dictionary): An occasion when the sun disappears from view, either completely or partially, because the moon passes between it and the earth.

Sentence from the article: "The total solar eclipse provided a rare opportunity to study the sun's corona."

Dictionary example: "A lunar eclipse occurs when the earth passes between the sun and the moon."

My example: People gathered from all over the world to witness the spectacular eclipse.

9. Exoplanet (n.)

Definition (Oxford Learner's Dictionaries): A planet that orbits a star outside the solar system.

Sentence from the article: "The discovery of exoplanets has revolutionized our understanding of planetary systems."

Dictionary example: "Scientists are searching for exoplanets that might support life."

My example: The Kepler telescope has identified thousands of exoplanet candidates.

10. Galaxy (n.)

Definition (Macmillan Dictionary): A large group of stars held together by gravity.

Sentence from the article: "The Milky Way galaxy is home to our solar system."

Dictionary example: "The Andromeda Galaxy is the closest major galaxy to our own."

My example: Spiral galaxies are known for their beautiful, swirling arms of stars and gas.

11. Gravity (n.)

Definition (Merriam-Webster): The force that attracts a body toward the center of the earth, or toward any other physical body having mass.

Sentence from the article: "Gravity plays a crucial role in the formation and evolution of stars and planets."

Dictionary example: "The apple fell from the tree due to the force of gravity."

My example: Astronauts experience weightlessness in space because they are in freefall around the Earth.

12. Interstellar (adj.)

Definition (Cambridge Dictionary): Existing or happening between the stars.

Sentence from the article: "The spacecraft embarked on an interstellar journey to explore distant star systems."

Dictionary example: "Interstellar dust and gas are the building blocks of new stars and planets."

My example: Interstellar travel remains a challenge due to the vast distances involved.

13. Lunar (adj.)

Definition (Collins Dictionary): Of or relating to the moon.

Sentence from the article: "The lunar lander touched down on the surface of the moon, marking a historic achievement."

Dictionary example: "The lunar phases affect the tides on Earth."

My example: Lunar rocks brought back by astronauts provide valuable information about the moon's history.

14. Meteor (n.)

Definition (Oxford Learner's Dictionaries): A small body of rock or metal that enters the earth's atmosphere, becoming incandescent as a result of friction and appearing as a streak of light.

Sentence from the article: "The meteor shower produced a spectacular display of shooting stars across the night sky."

Dictionary example: "Meteors are often referred to as shooting stars."

My example: A meteor's bright streak across the sky is caused by its burning up in the atmosphere.

15. Nebula (n.)

Definition (Macmillan Dictionary): A cloud of gas and dust in space.

Sentence from the article: "The Orion Nebula is a stellar nursery where new stars are born."

Dictionary example: "Nebulae are often illuminated by the light of nearby stars."

My example: The Hubble Space Telescope has captured breathtaking images of nebulae in various shapes and colors.

16. Orbit (n.)

Definition (Merriam-Webster): The curved path of a celestial object or spacecraft around a star, planet, or moon.

Sentence from the article: "The satellite was launched into orbit around Earth to collect data on climate change."

Dictionary example: "The Earth orbits the sun once every 365 days."

My example: The International Space Station orbits Earth at an altitude of about 250 miles.

17. Planetary (adj.)

Definition (Cambridge Dictionary): Relating to planets.

Sentence from the article: "Planetary scientists study the composition, atmosphere, and geology of planets."

Dictionary example: "Planetary exploration has revealed a diversity of worlds within our solar system."

My example: Planetary systems are found throughout the Milky Way galaxy.

18. Satellite (n.)

Definition (Collins Dictionary): A natural or artificial body that revolves around a planet.

Sentence from the article: "The satellite provided valuable data on weather patterns and ocean currents."

Dictionary example: "The moon is Earth's only natural satellite."

My example: Communication satellites enable global telephone and television transmissions.

19. Solar (adj.)

Definition (Oxford Learner's Dictionaries): Relating to or coming from the sun.

Sentence from the article: "Solar flares can disrupt communication systems on Earth."

Dictionary example: "Solar energy is a renewable source of power."

My example: Solar panels convert sunlight into electricity.

20. Telescope (n.)

Definition (Macmillan Dictionary): An instrument that is used for making distant objects appear nearer and larger.

Sentence from the article: "The Hubble Space Telescope has revolutionized our understanding of the universe."

Dictionary example: "Astronomers use telescopes to observe stars and galaxies."

My example: Galileo Galilei made groundbreaking discoveries using his telescope.

21. Astronomical Unit (AU)

Definition (NASA): The average distance between Earth and the Sun, about 149.6 million kilometers (93 million miles).

Sentence from the article: "The newly discovered exoplanet orbits its star at a distance of 0.5 AU."

Dictionary example: "Pluto's average distance from the Sun is 39.5 AU."

My example: Astronomers use AU as a convenient unit for measuring distances within our solar system.

22. Black Hole (n.)

Definition (Merriam-Webster): A region of spacetime exhibiting such strong gravitational effects that nothing—not even particles and electromagnetic radiation such as light—can escape from inside it.

Sentence from the article: "The supermassive black hole at the center of our galaxy exerts a powerful gravitational pull on surrounding stars."

Dictionary example: "Black holes are thought to form from the collapse of massive stars."

My example: The event horizon of a black hole marks the point of no return.

23. Constellation (n.)

Definition (Cambridge Dictionary): A group of stars that forms a particular shape in the sky and has been given a name.

Sentence from the article: "The constellation Orion is easily recognizable by its distinctive belt of three stars."

Dictionary example: "The Big Dipper is part of the constellation Ursa Major."

My example: Ancient cultures created stories and myths around constellations.

24. Cosmic (adj.)

Definition (Collins Dictionary): Relating to the universe or cosmos.

Sentence from the article: "The cosmic microwave background radiation provides evidence for the Big Bang theory."

Dictionary example: "Cosmic rays are high-energy particles that originate from outer space."

My example: The vastness of the cosmos inspires awe and wonder.

25. Electromagnetic Radiation (n.)

Definition (Oxford Learner's Dictionaries): A form of energy that travels through space as waves.

Sentence from the article: "Electromagnetic radiation from distant galaxies provides information about their composition and movement."

Dictionary example: "Visible light, radio waves, and X-rays are all forms of electromagnetic radiation."

My example: Electromagnetic radiation is used in various technologies, including communication and medical imaging.

26. Galaxy Cluster (n.)

Definition (Macmillan Dictionary): A group of galaxies held together by gravity.

Sentence from the article: "The galaxy cluster contains thousands of individual galaxies."

Dictionary example: "Galaxy clusters are the largest known gravitationally bound structures in the universe."

My example: The distribution of galaxy clusters provides insights into the large-scale structure of the universe.

27. Interplanetary (adj.)

Definition (Merriam-Webster): Existing or occurring between planets.

Sentence from the article: "The spacecraft embarked on an interplanetary mission to explore Mars."

Dictionary example: "Interplanetary travel poses significant technological challenges."

My example: The Voyager probes have explored the outer reaches of our solar system on their interplanetary journeys.

28. Light-year (n.)

Definition (Cambridge Dictionary): The distance that light travels in one year.

Sentence from the article: "The nearest star system to our own is located 4.2 light-years away."

Dictionary example: "Light-years are used to measure vast distances in space."

My example: The Milky Way galaxy is about 100,000 light-years across.

29. Magnetosphere (n.)

Definition (Collins Dictionary): The region around a planet in which charged particles are controlled by that planet's magnetic field.

Sentence from the article: "Earth's magnetosphere protects us from harmful solar wind and cosmic rays."

Dictionary example: "Jupiter has the strongest magnetosphere in the solar system."

My example: The aurora borealis is a result of charged particles interacting with Earth's magnetosphere.

30. Redshift (n.)

Definition (Oxford Learner's Dictionaries): The displacement of spectral lines towards longer wavelengths (the red end of the spectrum) in radiation from distant galaxies and celestial objects.

Sentence from the article: "The redshift of a galaxy indicates its distance and recessional velocity."

Dictionary example: "Redshift is a key piece of evidence for the expansion of the universe."

My example: Astronomers use redshift to study the history and evolution of the cosmos.

31. Solar System (n.)

Definition (Macmillan Dictionary): The sun and all the planets that move around it.

Sentence from the article: "Our solar system consists of eight planets, numerous moons, and countless asteroids and comets."

Dictionary example: "The exploration of the solar system is an ongoing endeavor."

My example: Each planet in our solar system has unique characteristics.

32. Spacecraft (n.)

Definition (Merriam-Webster): A vehicle designed for travel in outer space.

Sentence from the article: "The spacecraft successfully landed on Mars, marking a major milestone in space exploration."

Dictionary example: "Spacecraft have been used to explore the Moon, Mars, and other celestial bodies."

My example: The International Space Station is a large spacecraft that orbits Earth.

33. Star (n.)

Definition (Cambridge Dictionary): A very large ball of burning gas in space that is usually seen as a point of light in the sky at night.

Sentence from the article: "Stars are born in nebulae and eventually die, either as white dwarfs, neutron stars, or black holes."

Dictionary example: "The Sun is the closest star to Earth."

My example: The night sky is filled with countless stars, each with its own unique history.

34. Supernova (n.)

Definition (Collins Dictionary): The explosion of a star, during which the star becomes extremely bright.

Sentence from the article: "The supernova released an enormous amount of energy, briefly outshining its entire galaxy."

Dictionary example: "Supernovae are important sources of heavy elements in the universe."

My example: The Crab Nebula is the remnant of a supernova observed in 1054 AD.

35. Telescope (n.)

Definition (Oxford Learner's Dictionaries): An instrument that is used for making distant objects appear nearer and larger.

Sentence from the article: "The Hubble Space Telescope has revolutionized our understanding of the universe."

Dictionary example: "Astronomers use telescopes to observe stars and galaxies."

My example: Galileo Galilei made groundbreaking discoveries using his telescope.

36. Universe (n.)

Definition (Macmillan Dictionary): Everything that exists, including all physical matter and energy, stars, planets, galaxies, and the contents of intergalactic space.

Sentence from the article: "The universe is vast and expanding, filled with countless galaxies and stars."

Dictionary example: "The origin and ultimate fate of the universe are fundamental questions in cosmology."

My example: The universe is a source of endless fascination and mystery.

37. Wavelength (n.)

Definition (Merriam-Webster): The distance between successive crests of a wave, especially points in a sound wave or electromagnetic wave.

Sentence from the article: "Different wavelengths of light reveal different properties of celestial objects."

Dictionary example: "Radio waves have longer wavelengths than visible light."

My example: The wavelength of light determines its color.

38. White Dwarf (n.)

Definition (Cambridge Dictionary): A small, very dense star that is the result of the collapse of a star like the sun when its hydrogen has been used up.

Sentence from the article: "After exhausting its nuclear fuel, the star will eventually become a white dwarf."

Dictionary example: "White dwarfs are among the oldest stars in the universe."

My example: Sirius B, the companion star to Sirius, is a white dwarf.

39. X-ray (n.)

Definition (Collins Dictionary): A type of electromagnetic radiation that has a very short wavelength and is able to pass through many solid substances.

Sentence from the article: "X-ray observations revealed the presence of a supermassive black hole at the center of the galaxy."

Dictionary example: "X-rays are used in medical imaging and airport security scanners."

My example: Astronomers use X-ray telescopes to study high-energy phenomena in the universe.

40. Zenith (n.)

Definition (Oxford Learner's Dictionaries): The point in the sky directly above an observer.

Sentence from the article: "The star reached its zenith at midnight."

Dictionary example: "The sun is at its zenith at noon."

My example: The moon was high in the sky, near its zenith.

41. Astrobiology (n.)

Definition (Merriam-Webster): A branch of biology concerned with the study of life on earth and the possibility of extraterrestrial life.

Sentence from the article: "Astrobiology seeks to answer fundamental questions about the origins and distribution of life in the universe."

Dictionary example: "Astrobiology research involves searching for signs of life on other planets and moons."

My example: The discovery of extremophiles on Earth has fueled interest in astrobiology.

42. Kuiper Belt (n.)

Definition (Cambridge Dictionary): A region of the solar system beyond the planets that contains many small bodies made of ice and rock.

Sentence from the article: "Pluto is located in the Kuiper Belt, a region of icy bodies at the edge of our solar system."

Dictionary example: "The Kuiper Belt is thought to be the source of many comets."

My example: The New Horizons spacecraft explored the Kuiper Belt object Arrokoth.

43. Observable Universe (n.)

Definition (Collins Dictionary): The part of the universe that can be observed from Earth or its vicinity, with current technology.

Sentence from the article: "The observable universe contains billions of galaxies, each with billions of stars."

Dictionary example: "The observable universe is limited by the speed of light and the age of the universe."

My example: The vastness of the observable universe is a humbling reminder of our place in the cosmos.

44. Spectroscopy (n.)

Definition (Oxford Learner's Dictionaries): The study of spectra, especially as a method of identifying the chemical composition of stars and other celestial bodies.

Sentence from the article: "Spectroscopy allows astronomers to determine the temperature, composition, and motion of stars and galaxies."

Dictionary example: "Spectroscopy is a powerful tool for analyzing light from distant objects."

My example: The spectrum of a star reveals its chemical fingerprint.

45. Trajectory (n.)

Definition (Macmillan Dictionary): The curved path that an object follows as it moves through space.

Sentence from the article: "The spacecraft's trajectory was carefully calculated to ensure a successful landing on Mars."

Dictionary example: "The trajectory of a projectile is affected by gravity and air resistance."

My example: The comet's trajectory will bring it close to Earth in a few years.