

# EARTH

1. Earth is the third planet from the Sun.
2. It is the only known planet that supports life.
3. Earth is about 4.54 billion years old.
4. It formed from the solar nebula along with the rest of the solar system.
5. Earth's shape is an oblate spheroid.
6. That means it's slightly flattened at the poles and bulged at the equator.
7. The equatorial diameter is about 12,756 km.
8. The polar diameter is about 12,714 km.
9. Earth's circumference is about 40,075 km.
10. Its surface area is around 510 million square kilometers.
11. About 71% of Earth's surface is covered by water.
12. The remaining 29% is land, including continents and islands.
13. The oceans include the Pacific, Atlantic, Indian, Southern, and Arctic.
14. Earth has one natural satellite: the Moon.
15. The Moon orbits Earth every 27.3 days.
16. Earth's axis is tilted at about 23.5 degrees.
17. This tilt causes the seasons.
18. Earth orbits the Sun in about 365.25 days.
19. This extra 0.25 days gives rise to leap years.
20. Earth rotates once every 24 hours.
21. This rotation causes day and night.
22. Earth's atmosphere is a mix of gases.
23. It is composed of 78% nitrogen and 21% oxygen.
24. The remaining 1% includes argon, CO<sub>2</sub>, and trace gases.
25. The atmosphere has five layers:
26. Troposphere, stratosphere, mesosphere, thermosphere, and exosphere.
27. Weather occurs in the troposphere.

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28. The ozone layer is found in the stratosphere.
29. The ozone layer protects life from harmful UV radiation.
30. Earth's magnetic field shields it from solar wind.
31. This field is generated by the motion of molten iron in the outer core.
32. Earth's internal structure has four layers:
33. Crust, mantle, outer core, and inner core.
34. The crust is the outermost solid layer.
35. The mantle lies beneath the crust.
36. The outer core is liquid iron and nickel.
37. The inner core is solid due to immense pressure.
38. Earth's surface is divided into tectonic plates.
39. These plates move slowly, causing earthquakes and volcanic activity.
40. Plate boundaries are zones of high geological activity.
41. Continents drift over millions of years.
42. All continents were once part of a supercontinent called Pangaea.
43. Earth's highest point is Mount Everest at 8,848 meters.
44. The lowest point on land is the Dead Sea shore.
45. The deepest ocean point is the Mariana Trench.
46. Earth has diverse ecosystems: forests, deserts, oceans, and tundras.
47. Life on Earth ranges from microscopic bacteria to large whales.
48. Biodiversity is essential for ecosystem stability.
49. Earth's climate varies by region and season.
50. Climate is influenced by latitude, altitude, and ocean currents.
51. Earth experiences natural cycles such as El Niño and La Niña.
52. Human activity has significantly impacted Earth's climate.
53. Burning fossil fuels increases greenhouse gases.
54. This leads to global warming and climate change.

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55. Rising temperatures cause melting glaciers and sea-level rise.
56. Deforestation reduces biodiversity and contributes to CO<sub>2</sub> buildup.
57. Conservation efforts aim to protect Earth's environment.
58. Earth has about 8 billion human inhabitants.
59. Humans have built civilizations, cities, and infrastructure.
60. There are over 190 recognized countries.
61. Earth has rich cultural, linguistic, and religious diversity.
62. Humans rely on Earth's natural resources for survival.
63. These include water, soil, minerals, and fossil fuels.
64. Sustainable development seeks to balance human needs with environmental health.
65. Earth is observed from space using satellites.
66. The first image of Earth from space was taken in 1946.
67. The famous "Blue Marble" photo was taken by Apollo 17 in 1972.
68. Earth looks mostly blue due to its vast oceans.
69. Space agencies like NASA and ESA study Earth's systems.
70. Earth has experienced mass extinction events.
71. The most famous one wiped out the dinosaurs 66 million years ago.
72. These events shape evolution and biodiversity.
73. Earth's biosphere includes all living organisms and their environments.
74. The hydrosphere encompasses all water bodies.
75. The lithosphere includes Earth's solid outer shell.
76. The atmosphere and climate interact with the biosphere.
77. Earth's gravity holds the Moon in orbit.
78. It also retains the atmosphere and oceans.
79. The gravitational pull keeps objects on the surface.
80. Earth receives energy from the Sun.
81. This energy drives weather, climate, and photosynthesis.

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- 82. Plants convert sunlight into food through photosynthesis.
- 83. Animals depend on plants and each other for food.
- 84. Earth's axial tilt causes solstices and equinoxes.
- 85. Solstices mark the longest and shortest days of the year.
- 86. Equinoxes occur when day and night are equal in length.
- 87. Earth's precession alters the orientation of its axis over time.
- 88. Milankovitch cycles influence long-term climate changes.
- 89. Earth is part of the solar system.
- 90. It orbits the Sun with seven other planets.
- 91. Earth is the densest planet in the solar system.
- 92. It is the fifth-largest in size.
- 93. Earth's Moon stabilizes its axial tilt.
- 94. The Moon causes tides in Earth's oceans.
- 95. Earth has been explored extensively by science.
- 96. Yet many parts of the deep ocean remain unknown.
- 97. Earth is both fragile and resilient.
- 98. It is our only home in the universe so far.
- 99. Protecting Earth is a global responsibility.
- 100.        Understanding Earth helps ensure a sustainable future for all life.

THANK YOU