

# Some Useful Numerical Information

*Last Updated: January 2021*

**Estimated age of the Universe:** 13.77 billion years old

**Nearest star to our own star - the Sun:** Proxima Centauri, 4.25 light-years (25 trillion miles)

**Speed of light in a vacuum:** 670,616,629 mph (300 million meters/second)

**Speed of sound in dry air (20°C):** 343 meters/second

**Fastest speed reached by an unmanned rocket in space:** 364,660 mph (Nov. 2021)

*We do not have the capability to travel to another solar system.*

**Distance of the moon from Earth:** 239 thousand miles

**Distance of the sun from Earth:** 93.824 million miles (1 AU)

*The sun is about 400 times further away than the moon. Their relative sizes and distances cause them to appear to be about the same size in the sky.*

**Age of the Sun, Earth, Solar System:** 4.571 billion years

**Diameter of the Sun:** 109 times Earth's diameter (865 thousand miles)

*The Sun is expected to remain a yellow star for about 5 billion more years until it runs out of hydrogen fuel, collapses, begins to use helium fuel and expands into a red giant.*

**Oldest fossil of human:** 2.8 million years based on a jaw bone found in Ethiopia (*not homo sapiens*)

**Age of youngest fossil of a dinosaur:** 65 million years

*Humans and dinosaurs never co-existed.*

**Average diameter of the planet Earth:** 7918 miles (about 8000 miles)

**Deepest hole every drilled by humans:** 7.5 miles

**Deepest ocean trench:** 36,070 feet - 6.8 miles

*We have barely scratched the surface of the Earth.*

**Highest Mountain:** Mount Everest has the "highest elevation above sea level". The peak of Mount Everest is 5.5 miles above sea level.

**Height of Willis Tower (Chicago):** 442 meters (1,450 feet) - this is a little more than 1/4 mile.

**Height of the atmosphere:** About 62 miles until outer space although there is no fixed boundary.

*99% of the atmospheric gases occur within 20 miles (32 km) above the Earth.*

*50% of the atmospheric gases occur within 3.2 miles (5 km) above the Earth.*

**Population of Earth:** 8 billion (2022)

**Population of the United States:** 330 million

**Population of Chicago (city limits):** 2.7 million **(metropolitan area)** 9.5 million

*There is no agreement on the number of people the Earth can support. Estimates vary from 2 billion (if everyone lived like the average American) to 40 billion (survival level). There are many variables.*