

Evidence #1

Scientists expect that the scientific principles we use on and around Earth also work elsewhere in the Universe. Observations of phenomena around the Universe show that this is true.

Evidence #5

Observations of the sky's background glow match predictions from models very well. This data tells us that the temperature of the Universe is about 2.7 K.

Evidence #2

Models of the Universe predict how much we should see of the lightest elements. Our observations of hydrogen, helium, and other light elements match these predictions.

Evidence #6

All galaxies are moving with space. Galaxies that are farther from Earth are moving faster than galaxies closer to Earth. Most galaxies are moving away from each other.

Evidence #3

On average we observe about the same distribution of galaxies in any area of space. We would also make this observation from any other location in space.

Evidence #7

The Universe has a predictable age based on its rate of expansion. Nothing in the Universe is older than that age.

Evidence #4

Astronomers observe a uniform glow in the background of the sky no matter where we look.

Evidence #8

The Universe was once extremely hot and allowed for matter and energy to spontaneously convert back and forth into each other. Today, the Universe is far cooler than it once was.