

What was the problem with the original Hubble mirror?

The telescope mirror was distorted.

Why the Hubble telescope has to operate in space?

The atmospheric blurring affects the view on Earth just like ripples in water warp the objects below the surface.

What fundamental interaction explains the formation of galaxies?

Gravitational interaction.

What are black holes?

Singularities of space-time, where space is infinitely curved. Their gravitational field is so strong that nothing can escape from a black hole.

What are worm holes?

A **wormhole**, also known as an **Einstein–Rosen bridge**, is a hypothetical [topological](#) feature of [spacetime](#) that would be fundamentally a "shortcut" through spacetime.

What is a quasar?

What are quasars?

A **quasi-stellar radio source** ("quasar", [/ˈkweɪzər/](#)) is a very energetic and distant [active galactic nucleus](#).

What is a pulsar?

A **pulsar** ([portmanteau](#) of *pulsating star*) is a highly magnetized, rotating [neutron star](#) that emits a beam of [electromagnetic radiation](#).

What are stellar nebulae?

A **nebula** (from [Latin](#): "cloud";^[1] pl. *nebulae* or *nebulæ*, with [ligature](#), or *nebulas*) is an [interstellar cloud](#) of [dust](#), [hydrogen](#), [helium](#) and other [ionized gases](#).

How do we observe gravitational lensing?

A **gravitational lens** refers to a distribution of plates (such as a [cluster of galaxies](#)) between a distant source (a background [galaxy](#)) and an observer, that is capable of bending (lensing) the light from the source, as it travels towards the observer. This

effect is known as gravitational lensing and is one of the predictions of [Albert Einstein's general theory of relativity](#).

When and how the universe was born?

In a process called Big Bang about 13.7 billion years ago.

What is the future of the universe?

The Big Rip — the expansion of the universe slowly accelerates.