

Life around other stars



There are billions of stars in the Universe... could there be life around any of them? Copyright: ESA/Hubble & NASA, A. Bellini et al.; CC BY 4.0

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Could there be life around other [stars](#)? Perhaps, living on [extrasolar planets](#)! But where do these planets come from?

Like the planets in our [Solar System](#), exoplanets form from clouds of gas and dust that are leftover from when their [stars are made](#). New stars send shock waves into space that cause this leftover material to combine, and over time they go on to make planets.

Amazingly, we have photos of exoplanet systems being made! The [NASA/ESA Hubble Space Telescope](#) was used to study the Orion Nebula, and discovered what scientists call protoplanetary discs. These are likely very young solar systems being made! Perhaps one day they will make planets that will eventually be just right for life to develop.

As well as spotting developing solar systems, scientists have found thousands of fully formed extrasolar planets already, and continue to discover more! Many of these planets are called “hot Jupiters” because they are large and have a high mass (like [Jupiter](#) in our own Solar System), but also orbit very close to their stars. This would make them unlikely to be suitable for life as we know it, but, as our techniques for discovering exoplanets improve, we are now spotting evidence of more Earth-like planets out there too.

It is not just planets that orbit stars. Other objects in space, such as [asteroids](#) and [comets](#), do as well. Could life exist on these? It is less likely, but there is a chance. Some scientists think it possible that tiny microbes of life could be carried from planet to planet on chunks of rock from asteroids, or even across vast areas of space on comets! We cannot be sure, but it is an interesting idea to consider.

What do you think? Is there life around other stars? If so, will ever discover it?

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