

THE WORLD OF ASTROBIOLOGISTS

Astrobiologists study life in the universe. They look at what is needed for life, as well as the possibility of whether there is life in outer space.

*Astrobiologist
(AS-troh-by-oh-luh-jist)*



*Astrobiologists work in the lab, creating or controlling space-exploring machines and analysing data from outer space. They use **telescopes**, **satellites**, and sometimes even **microscopes**!*

WHAT DO ASTROBIOLOGISTS DO?

An astrobiologists work is really interesting because there is always a chance of making new discoveries.

LAB WORK

An astrobiologist's work is mostly done from a lab, but that doesn't mean it's boring. It's one of the most exciting sciences as new discoveries are being made all the time. Astrobiologists work closely with engineers and other clever scientists to design and create machines like rovers and landers that can travel to, explore, and do experiments on other planets to search for alien life. They then control them from Earth!



WORKING FROM AFAR

Astrobiologists spend a lot of their time surveying outer space with telescopes. After making observations, they must spend time looking at, and interpreting, the data collected by these machines, whether it be a string of numbers or a collection of images. In the future, they may also have samples of materials, like rock or liquid, from faraway planets that they can study using tools such as microscopes.



WHO DO ASTROBIOLOGISTS WORK FOR?

Most astrobiologists work for national or international space agencies or universities.

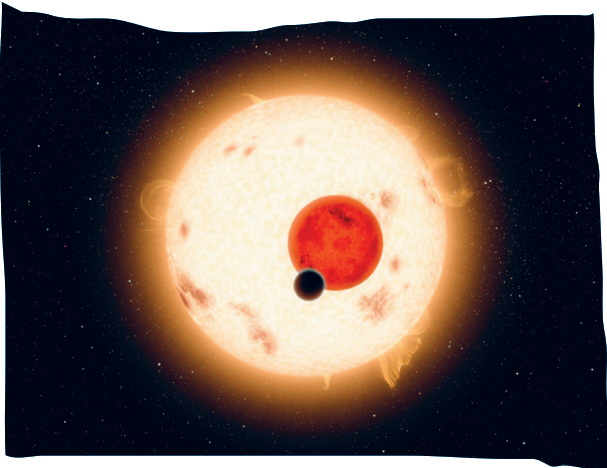
Space agencies can be owned and run by either a company or the government of a country. Astrobiologists who work for a space agency usually focus on special projects. Projects can be huge and last for years! They also usually require astrobiologists to work with different scientists and engineers, everyone bringing their knowledge together to succeed.

As with most fields of science, many astrobiologists teach students at universities alongside taking part in research.

No matter who astrobiologists work for, they have all worked hard and studied at university to be able to do their jobs. And what an amazing job it is to do!

FAMOUS DISCOVERIES

Astrobiologists have made so many amazing discoveries that have changed our understanding of outer space. Here's just a few of the biggest and best!

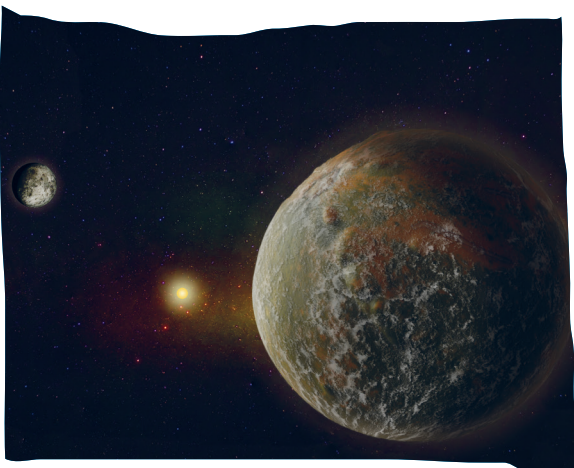
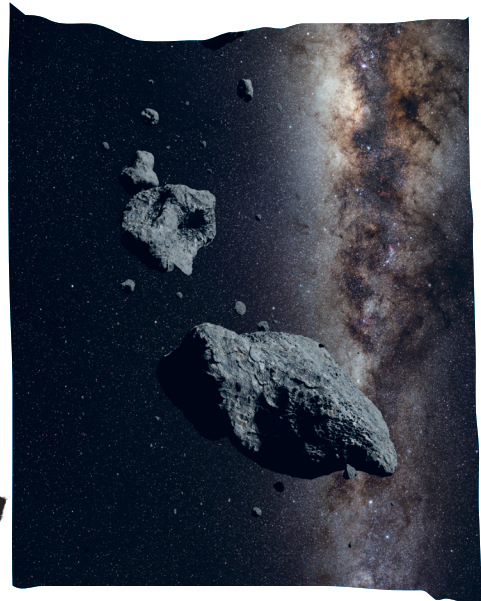


TWO STARS?

Not all planets orbit one star like Earth (our Sun is a star). The exoplanet Kepler-16b is in a star system which has two stars, and it orbits both at once! This is called a circumbinary planet and Kepler-16b was the first one ever found.

BUILDING BLOCKS FOR LIFE

Scientists have found a substance that helps RNA form – similar to DNA, the basis of all life – in asteroid samples which have travelled far across outer space. This is very intriguing for astrobiologists' search for life.



EARTH-LIKE PLANETS!

Thanks to advanced tools like the James Webb Space Telescope, scientists can learn lots about exoplanets, including what they're made of and if they have an atmosphere. This helps them work out which exoplanets might be promising for life.

Astrobiologists are making discoveries all the time, who knows what they might discover next!

FAMOUS ASTROBIOLOGISTS

There have been so many clever astrobiologists over the years.
Here's just a few of the most famous.



CARL SAGAN

Carl Sagan was one of the most influential astrobiologists. He discovered the reason Venus is so hot, assisted with the design of Mars rovers, helped design messages sent into the solar system on spacecraft, and wrote more than 600 scientific articles!

MICHEL MAYOR AND DIDIER QUELOZ

These scientists were awarded a Nobel Prize in Physics for their discovery of the first exoplanet orbiting a Sun-like star in 1995.



WILLIAM BORUCKI

William Borucki designed the Kepler space telescope which discovered more than 2,600 exoplanets! It was launched in 2009 and retired in 2018.

These are just a few of the many astrobiologists who have made a huge difference to the science.