### **Scientists find possible alien life in outer space**

Scientists are a step closer to providing an affirmative answer to the question "Are we alone?" For centuries, astronomers have been observing the heavens for signs of extraterrestrial life. Earlier this week, a team of astronomers announced they had detected a chemical that provides the conditions for life forms. Astrophysicist Dr Nikku Madhusudhan from the University of Cambridge's Institute of Astronomy announced the existence of two chemicals called DMS and DMDS. These are "biosignatures" – the potential fingerprints of life. On Earth, these are only produced by microorganisms, such as plankton. The astronomers said the chemicals are "the most promising signs yet" of life.

The two biosignatures were discovered on a planet called K2-18b. This is about 124 light-years from Earth. One light year is approximately 9.46 trillion km. Dr Madhusudhan speculated that the planet is a Hycean world. This is a potentially habitable planet covered in liquid water with an abundance of hydrogen. He said: "Given everything we know about [the planet K2-18b], a Hycean world with an ocean that is teeming with life is the scenario that best fits the data we have." However, he stopped short of stating that life exists on the planet. He said he was 99.7% sure that his findings did not occur by chance, but needed to be 99.99994% certain to state as fact that we are not alone.

[Webb Discovers Methane, Carbon Dioxide in Atmosphere of K2-18 b](https://www.nasa.gov/universe/exoplanets/webb-discovers-methane-carbon-dioxide-in-atmosphere-of-k2-18-b/)

**Homework:**

1. Write a full sentence answer for each question below.
2. For how long have astronomers been looking for alien life?
3. What is Dr Nikku Madhusudhan's specialty?
4. What does the article say "biosignatures" are?
5. What microorganism is mentioned in the article?
6. What are the two chemicals a promising sign of?
7. How far away is the planet K2-18b from Earth?
8. What is a Hycean world covered in?
9. What is teeming with life in a Hycean world?
10. What did Dr Nikku Madhusudhan stop short of stating?
11. How sure is Dr Nikku Madhusudhan that life exists in space?

**Academic Writing**

* Write about exoplanet K2-18b for 10 minutes.