



THE SEARCH
FOR LIFE
IN THE

UNIVERSE

1
00:00:00,334 --> 00:00:03,604
Here's what you need
to know about astrobiology.

2
00:00:04,171 --> 00:00:05,906
How did life begin on Earth?

3
00:00:05,939 --> 00:00:08,075
Does life exist beyond Earth?

4
00:00:08,108 --> 00:00:10,277
How do we search for it?

5
00:00:10,911 --> 00:00:12,679
These are the really tough questions

6
00:00:12,713 --> 00:00:14,314
astrobiologists want to answer.

7
00:00:14,348 --> 00:00:16,316
But it's not easy.

8
00:00:18,118 --> 00:00:20,187
So far, we have one great example of life:

9
00:00:22,689 --> 00:00:24,324
Earth.

10
00:00:24,358 --> 00:00:26,193
But does it also exist elsewhere?

11
00:00:26,226 --> 00:00:30,531
On Earth, extremophiles (life that loves
extreme environments like Antarctica)

12
00:00:30,564 --> 00:00:32,332
tell us the limits to life,

13
00:00:32,366 --> 00:00:36,837
hinting at where it might exist elsewhere
in our solar system.

14
00:00:36,870 --> 00:00:41,341
Life on other planets could exist
in ways we couldn't possibly imagine.

15
00:00:41,375 --> 00:00:45,045
And if it does,
we might not know what we're looking at.

16
00:00:45,078 --> 00:00:47,548
So, we start by looking for
life as we know it.

17
00:00:47,581 --> 00:00:50,884
So when NASA scientists are searching
for exoplanets like Earth,

18
00:00:50,918 --> 00:00:53,320
they look for gases
or molecules like oxygen

19
00:00:53,353 --> 00:00:55,155
in exoplanets' atmospheres.

20
00:00:55,822 --> 00:00:59,226
Closer to home NASA is also
searching for signs of life on:

21
00:00:59,259 --> 00:01:01,728
Mars, Enceladus, Europa, Titan.

22
00:01:02,462 --> 00:01:03,430
Back home

23
00:01:03,463 --> 00:01:07,000
we study the great diversity of life

across our own planet.

24

00:01:07,034 --> 00:01:11,104

From the craziest,
wackiest corners of Earth

25

00:01:11,138 --> 00:01:14,408

to lifeforms that existed
billions of years ago.

26

00:01:14,441 --> 00:01:18,712

Helping inform us as we search
for life in the cosmos.

27

00:01:18,745 --> 00:01:22,850

In short, astrobiology is trying to answer
the very big question:

28

00:01:22,883 --> 00:01:24,785

Are we alone?

29

00:01:24,818 --> 00:01:29,723

And that's what you need to know
about astrobiology.