



ARE THERE
RIVERS
& **LAKES**
ON OTHER
WORLDS?



1

00:00:01,171 --> 00:00:04,434

Are there rivers and lakes on other worlds?

2

00:00:06,172 --> 00:00:07,863

NASA.

3

00:00:07,863 --> 00:00:09,635

We Asked a NASA Scientist.

4

00:00:09,843 --> 00:00:11,978

The answer, surprisingly, is yes.

5

00:00:11,978 --> 00:00:14,047

Titan, which is the largest moon of Saturn,

6

00:00:14,080 --> 00:00:16,316

has lakes and rivers on its surface.

7

00:00:16,383 --> 00:00:19,519

Unlike Earth, the rivers and lakes and streams on Titan

8

00:00:19,519 --> 00:00:22,722

are made out of methane
and ethane. But very much like Earth,

9

00:00:22,756 --> 00:00:24,724

there's what we call a hydrologic cycle.

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00:00:24,724 --> 00:00:28,528

So methane can move back and forth
between the surface and the atmosphere.

11

00:00:28,561 --> 00:00:32,032

That means that we don't just have lakes
and streams and rivers.

12

00:00:32,065 --> 00:00:34,567

We also have rain and clouds.

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00:00:34,735 --> 00:00:37,170

And Titan is one of the only places in the solar system

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00:00:37,170 --> 00:00:39,239

where it might be possible to see a rainbow.

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00:00:39,239 --> 00:00:43,109

At other points in solar system history,
we do think that other worlds

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00:00:43,143 --> 00:00:44,778

also had lakes and streams.

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00:00:44,920 --> 00:00:49,883

Mars, for example, we know, had a lot of liquid water on its surface earlier in its history.

18

00:00:49,916 --> 00:00:53,086

But today there's only two places
in our solar system

19

00:00:53,086 --> 00:00:56,689

that currently have liquid on their surface — Earth and Titan.

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00:00:56,990 --> 00:00:59,534

So, are there rivers and lakes on other worlds?

21

00:00:59,862 --> 00:01:02,262

In our solar system, the answer is definitely yes,

22

00:01:02,262 --> 00:01:04,130

but we also know that there's more to be discovered

23

00:01:04,130 --> 00:01:07,133

as we start to learn
more about planets around other stars.