



1

00:00:01,130 --> 00:00:03,170

Narrator: NASA's Kepler Mission has discovered the

2

00:00:03,170 --> 00:00:06,040

first near-Earth-size planet orbiting in the

3

00:00:06,040 --> 00:00:10,570

habitable zone of a star very similar to our Sun.

4

00:00:10,570 --> 00:00:13,930

Located about 1,400 light-years from Earth in the

5

00:00:13,930 --> 00:00:16,640

constellation of Cygnus, the newly discovered

6

00:00:16,640 --> 00:00:21,050

planet resides in the Kepler-452 system.

7

00:00:21,050 --> 00:00:24,520

The planet, called Kepler-452b, is about

8

00:00:24,520 --> 00:00:27,320

60 percent larger than Earth.

9

00:00:27,320 --> 00:00:30,160

While its mass and composition are not known,

10

00:00:30,160 --> 00:00:32,040

researchers believe that it is likely

11

00:00:32,040 --> 00:00:34,260

to be a rocky world.

12

00:00:34,260 --> 00:00:37,180

The host star of Kepler-452b is the same

13

00:00:37,180 --> 00:00:39,750

"G" type as our Sun.

14
00:00:39,750 --> 00:00:43,640
It is 6 billion years old, 1.5 billion years older

15
00:00:43,640 --> 00:00:46,370
than our Sun and is 10 percent larger and

16
00:00:46,370 --> 00:00:48,910
20 percent brighter.

17
00:00:48,910 --> 00:00:52,650
Kepler-452b receives only 10 percent more energy

18
00:00:52,650 --> 00:00:56,200
from its star than the Earth does from the Sun.

19
00:00:56,200 --> 00:00:59,570
Since the Kepler mission was launched in 2009,

20
00:00:59,570 --> 00:01:03,720
it has identified 4,696 planet candidates,

21
00:01:03,720 --> 00:01:07,620
one thousand of which have been confirmed as planets.

22
00:01:07,620 --> 00:01:11,280
Of those confirmed, 12 are near-Earth-size and in

23
00:01:11,280 --> 00:01:14,010
the habitable zone of their star.

24
00:01:14,010 --> 00:01:16,390
The mission has provided data that has helped to

25
00:01:16,390 --> 00:01:19,860
redefine our understanding of stars and planetary

26

00:01:19,860 --> 00:01:21,700

systems in our galaxy.

27

00:01:21,700 --> 00:01:24,370

Researchers will use this data to continue to make

28

00:01:24,370 --> 00:01:27,670

discoveries for years to come.