1
00:00:00,170 --> 00:00:01,430
- [Instructor] You're probably familiar

2
00:00:01,430 --> 00:00:05,080
with the major types of
planets in our solar system.

3
00:00:05,080 --> 00:00:07,650
You know, there are some
smaller rocky planets

4
00:00:07,650 --> 00:00:09,660
and some giant gas planets.

5
00:00:09,660 --> 00:00:13,380
The rocky, or terrestrial
ones are closer to our star,

6
00:00:13,380 --> 00:00:16,810
the sun where it's much warmer,
while the giant gas planets

7
00:00:16,810 --> 00:00:18,530
are farther out in the cold.

8
00:00:18,530 --> 00:00:22,090
But what about other planet
systems we're finding out there

9
00:00:22,090 --> 00:00:23,390
among the stars?

10
00:00:23,390 --> 00:00:26,840
For the most part, they don't
look a whole lot like ours.

11
00:00:26,840 --> 00:00:30,050
Turns out, there doesn't seem
to be a typical arrangement

12
00:00:30,050 --> 00:00:31,800
for planetary systems.

13
00:00:31,800 --> 00:00:35,660
Yep, all planetary systems might be weird.

14
00:00:35,660 --> 00:00:37,410
Most other systems of planets

15
00:00:37,410 --> 00:00:39,980
are certainly arranged differently.

16
00:00:39,980 --> 00:00:42,550
Sure there are lots of
planets out there the size

17
00:00:42,550 --> 00:00:44,530
of Juipter and Neptune and Earth,

18
00:00:44,530 --> 00:00:47,980
but their Jupiters and
Neptunes can be way closer

19
00:00:47,980 --> 00:00:49,870
to their stars than ours.

20
00:00:49,870 --> 00:00:53,950
Some as close or closer
than the orbit of Mercury.

21
00:00:53,950 --> 00:00:56,680
So scientists who study these exo-planets,

22
00:00:56,680 --> 00:00:59,910
planets outside our solar
system, find themselves using

23

00:00:59,910 --> 00:01:03,860
terms like Hot Jupiters and warm Neptunes.

24
00:01:03,860 --> 00:01:06,840
Plus, there's a whole
range of exo-planet sizes

25
00:01:06,840 --> 00:01:09,860
from much smaller than Earth
to even bigger than Jupiter.

26
00:01:09,860 --> 00:01:11,850
To help describe what weight class each

27
00:01:11,850 --> 00:01:14,410
of these planets belong
to, we often refer back

28
00:01:14,410 --> 00:01:17,210
to the different planet
types in our solar system

29
00:01:17,210 --> 00:01:19,300
using terms like Mini Neptunes

30
00:01:19,300 --> 00:01:22,690
and Super-Earths or Super-Terrestrials.

31
00:01:22,690 --> 00:01:25,360
We're constantly learning
more about exo-planets

32
00:01:25,360 --> 00:01:28,730
and our ideas about them
are changing as we go,

33
00:01:28,730 --> 00:01:31,670
ideas about how these
different planet types relate