



get
CURIOUS

1
00:00:02,769 --> 00:00:06,006
(rhythmic music)

2
00:00:08,774 --> 00:00:11,477
- Hi, I'm NASA astronaut
Shane Kimbrough,

3
00:00:11,510 --> 00:00:14,113
aboard the International
Space Station, with a challenge.

4
00:00:14,146 --> 00:00:16,382
This year,
during World Space Week,

5
00:00:16,415 --> 00:00:18,618
I challenge you to go outside
and look at the Moon.

6
00:00:18,651 --> 00:00:22,755
Go to your local observatory
or look up with your own eyes,

7
00:00:22,788 --> 00:00:25,091
or maybe even make
your own telescope.

8
00:00:25,124 --> 00:00:27,693
I am calling on my team
to get curious

9
00:00:27,726 --> 00:00:29,762
and figure out how to do it.

10
00:00:29,795 --> 00:00:31,564
Do you want to join the team?

11
00:00:31,597 --> 00:00:33,699
Don't worry,

you'll have help from me

12

00:00:33,732 --> 00:00:36,169
and a couple other important
people on the way.

13

00:00:36,202 --> 00:00:37,270
Let's do it!

14

00:00:37,303 --> 00:00:39,472
■ Get curious ■

15

00:00:40,072 --> 00:00:43,543
<i> (Shane): Step one,
meet the rest of the team.</i>

16

00:00:43,576 --> 00:00:47,146
- Hi, I'm Emily and I'm from
Westwood in New Jersey.

17

00:00:47,179 --> 00:00:49,482
- Hi, I'm Derrick and
I'm from Saint-Louis, Missouri.

18

00:00:49,515 --> 00:00:53,419
- Hi, my name is Zhoriel and
I'm from Lafayette, Louisiana.

19

00:00:53,452 --> 00:00:57,390
- Hi, my name is Trevor and
I'm from Monterey, California.

20

00:00:57,423 --> 00:01:00,293
- Hi, I'm Sydney
and I'm from Iowa City, Iowa.

21

00:01:00,326 --> 00:01:02,395
- NASA?
- Wait, NASA?

22

00:01:02,428 --> 00:01:03,596

(overlapping chatter)

23

00:01:03,629 --> 00:01:05,398

<i>- Please hold for a transmission</i>

24

00:01:05,431 --> 00:01:07,567

<i> from the International
Space Station.</i>

25

00:01:07,600 --> 00:01:10,070

- It's crazy.

- No way!

26

00:01:10,737 --> 00:01:13,139

- Oh, my gosh!

That's so cool!

27

00:01:13,172 --> 00:01:14,774

- Are we ready to go, team?

28

00:01:14,807 --> 00:01:16,742

The journey starts in DC.

29

00:01:16,775 --> 00:01:19,479

- No way!

(overlapping chatter)

30

00:01:19,512 --> 00:01:22,315

(rhythmic music)

31

00:01:30,656 --> 00:01:33,259

(beeping)

- Guys, I got a message.

32

00:01:34,026 --> 00:01:36,596

<i> - Hey, team, if you're
gonna build your own telescope,</i>

33

00:01:36,629 --> 00:01:39,332

it might help to see
how one works first.

34

00:01:39,365 --> 00:01:41,801

Head over to the United States
Naval Observatory

35

00:01:41,834 --> 00:01:43,402

to start your adventure.

36

00:01:43,435 --> 00:01:45,105

- We gotta go
to the observatory.

37

00:01:46,472 --> 00:01:49,742

<i> - The Naval Observatory
was created in 1825</i>

38

00:01:49,775 --> 00:01:52,879

<i> to help the United States
learn more about space.</i>

39

00:01:52,912 --> 00:01:55,448

<i> - When the Naval Observatory
was built,</i>

40

00:01:55,481 --> 00:01:57,783

<i> they would send out a signal
every day at noon</i>

41

00:01:57,816 --> 00:01:59,619

<i>to set the time for the country.</i>

42

00:01:59,652 --> 00:02:02,321

<i> - They still keep time here
with the master clock,</i>

43

00:02:02,354 --> 00:02:03,856

<i> a super accurate atomic clock</i>

44

00:02:03,889 --> 00:02:05,658

<i> that sets the time
for the Internet.</i>

45

00:02:05,691 --> 00:02:07,927

<i> - And it's been home
to some awesome astronomers.</i>

46

00:02:07,960 --> 00:02:10,263

<i> That's Asaph Hall!</i>

47

00:02:10,296 --> 00:02:12,331

<i>He discovered the moons of Mars.</i>

48

00:02:12,364 --> 00:02:16,602

<i> - It has a huge telescope
inside that people use
to study the stars.</i>

49

00:02:16,635 --> 00:02:20,306

<i> - Geoff Chester, who runs
the telescope, showed us around.</i>

50

00:02:20,339 --> 00:02:21,674

<i> - He told us that it works</i>

51

00:02:21,707 --> 00:02:23,543

<i> by using lenses on both ends
of the tube</i>

52

00:02:23,576 --> 00:02:26,479

<i> to help to focus the light
from things that are far away.</i>

53

00:02:26,512 --> 00:02:29,182

- Sounds like you need
to find some lenses and a tube

54

00:02:29,215 --> 00:02:30,483

to build your telescope.

55

00:02:30,516 --> 00:02:31,884

Why don't you look around
the library

56

00:02:31,917 --> 00:02:33,419

and see what you can find.

57

00:02:33,452 --> 00:02:36,789

- Where's the library?

Maybe it's down here.

58

00:02:37,222 --> 00:02:39,192

- Guys, there it is!

59

00:02:39,225 --> 00:02:40,426

- Whoa!

- Oh, my gosh.

60

00:02:42,528 --> 00:02:44,531

- Whoa, check this out!

61

00:02:44,998 --> 00:02:46,699

- There's so many books!

62

00:02:46,732 --> 00:02:48,601

- This place is huge.

63

00:02:48,634 --> 00:02:50,303

- Let's start looking.

64

00:02:51,470 --> 00:02:53,206

- Look at that!

65

00:02:56,709 --> 00:02:58,344

- Whoa!

66

00:02:58,377 --> 00:02:59,946

- Is that like, a necklace
or something?

67

00:02:59,979 --> 00:03:01,948

- It's a magnifying glass,
I think.

68

00:03:01,981 --> 00:03:03,516

- Or a lens!

69

00:03:03,549 --> 00:03:04,550

Here's another one!

70

00:03:04,583 --> 00:03:05,952

- We found two lenses.

71

00:03:05,985 --> 00:03:07,754

(beeping)

72

00:03:08,454 --> 00:03:10,890

- Your next challenge
is to find and meet

73

00:03:10,923 --> 00:03:12,625

the head of the Space Council.

74

00:03:12,658 --> 00:03:14,994

I'll give you a hint:
she actually lives

75

00:03:15,027 --> 00:03:16,929

at the Naval Observatory.

76

00:03:16,962 --> 00:03:20,200

<i> - I wonder who the head
of the Space Council is.</i>

77

00:03:21,201 --> 00:03:25,371

<i> - Are you kidding me?

The head of the Space Council
is the vice-president!</i>

78

00:03:25,404 --> 00:03:29,709

<i> - Kamala Harris is

the vice-president

of the United States.</i>

79

00:03:29,742 --> 00:03:31,711

<i> But she's also the president

of the Senate.</i>

80

00:03:31,744 --> 00:03:33,679

<i> - And the head

of the Space Council.</i>

81

00:03:33,712 --> 00:03:35,848

- Welcome, you guys.

- Thank you so much.

82

00:03:35,881 --> 00:03:38,384

- Thank you.

- Ready to start? Okay, go.

83

00:03:38,417 --> 00:03:41,721

- So, I may not always be fast

to take my parents' advice,

84

00:03:41,754 --> 00:03:43,823

but what is the best advice

your parents have given you

85

00:03:43,856 --> 00:03:45,625

that perhaps you can

share with us today?

86

00:03:46,792 --> 00:03:49,829

- You know, one of the most

important pieces of advice

87

00:03:49,862 --> 00:03:51,664

that I can offer you guys,

88

00:03:51,697 --> 00:03:54,667

and I want you to really
remember this,

89

00:03:54,700 --> 00:03:58,638

never let anybody tell you
who you are,

90

00:03:58,671 --> 00:04:00,673

you tell them who you are.

91

00:04:00,706 --> 00:04:03,943

Never let anybody suggest to you

92

00:04:03,976 --> 00:04:05,945

that you are what
they think you should be,

93

00:04:05,978 --> 00:04:09,715

you tell them who you are
and who you know you are,

94

00:04:09,748 --> 00:04:11,985

and what you intend to be.

95

00:04:12,851 --> 00:04:14,420

Got that?

- Yes.

96

00:04:14,453 --> 00:04:16,922

- Alright. I've got more advice.
You just let me know.

97

00:04:16,955 --> 00:04:18,791

(laughing)

98

00:04:18,824 --> 00:04:20,526

- So what is the most surprising thing

99

00:04:20,559 --> 00:04:22,428

you found about being vice-president?

100

00:04:22,461 --> 00:04:23,863

- There have been a lot of things

101

00:04:23,896 --> 00:04:25,631

because I've never been vice-president before, so...

102

00:04:25,664 --> 00:04:27,767

(laughing)

There are many new things.

103

00:04:27,800 --> 00:04:29,502

But I'll tell you one of the things

104

00:04:29,535 --> 00:04:31,470

I'm really excited about, and one of the reasons

105

00:04:31,503 --> 00:04:34,307

for our visit and the time we're gonna spend together today,

106

00:04:34,340 --> 00:04:35,541

it's the Space Council.

107

00:04:35,574 --> 00:04:37,677

My mom was a scientist.

108

00:04:37,710 --> 00:04:40,780

So she would take us
to the lab with her,

109

00:04:40,813 --> 00:04:42,948

like on the weekends
and after school

110

00:04:42,981 --> 00:04:44,850

because she had to work
long hours,

111

00:04:44,883 --> 00:04:49,722

and I just love the idea
of exploring the unknown.

112

00:04:49,755 --> 00:04:51,824

And then, there's other things
that we just haven't

113

00:04:51,857 --> 00:04:53,626

figured out
or discovered yet.

114

00:04:53,659 --> 00:04:56,329

To think about so much
that's out there

115

00:04:56,362 --> 00:04:59,598

that we still have to learn,
like, I love that.

116

00:04:59,631 --> 00:05:02,835

I love that. And so, I'm very
excited about the Space Council.

117

00:05:02,868 --> 00:05:06,539

We're gonna learn so much
as we increasingly, I think,

118

00:05:06,572 --> 00:05:09,875

are curious and interested
in the potential

119

00:05:09,908 --> 00:05:13,713

for the discoveries and the work
we can do in space.

120

00:05:13,746 --> 00:05:16,682

So, that's one of the things
I'm most excited about.

121

00:05:16,715 --> 00:05:20,086

But the other, you guys
are gonna see,

122

00:05:20,119 --> 00:05:23,689

you're gonna literally see
the craters on the Moon

123

00:05:23,722 --> 00:05:25,758

with your own eyes.

- Oh, my goodness.

124

00:05:25,791 --> 00:05:28,594

- With your own eyes,
I'm telling you!

125

00:05:28,627 --> 00:05:31,063

It is gonna be unbelievable.

126

00:05:31,096 --> 00:05:33,132

So that's one of the things
we can do here too

127

00:05:33,165 --> 00:05:35,534

which makes it so exciting.

So that's what we're gonna do.

128

00:05:35,567 --> 00:05:36,936
You guys ready to go up there?

129
00:05:36,969 --> 00:05:38,904
(all): Yes!
- Come on, let's go.

130
00:05:38,937 --> 00:05:41,374
<i> - We then headed to
the Naval Observatory</i>

131
00:05:41,407 --> 00:05:44,443
<i> where we met Captain Kuehn and
asked them what they did there.</i>

132
00:05:44,476 --> 00:05:46,779
- We do time and we do space.

133
00:05:46,812 --> 00:05:49,949
The sky and space has been
our clock for centuries.

134
00:05:49,982 --> 00:05:53,619
So think of the sun
going around the Earth.

135
00:05:53,652 --> 00:05:56,922
You can tell time by a sundial
or a telescope like this

136
00:05:56,955 --> 00:06:01,694
which watches stars go through
a viewscope, the same star
passes every 24 hours.

137
00:06:01,727 --> 00:06:03,529
That's how we used to tell time.

138
00:06:03,562 --> 00:06:06,966
Time's very important because

everything that you do every day

139

00:06:06,999 --> 00:06:08,534

somehow relates to time.

140

00:06:08,567 --> 00:06:12,004

Power grids, the Internet, WiFi,

141

00:06:12,037 --> 00:06:14,607

communications, your cellphones.

142

00:06:14,640 --> 00:06:16,675

They all need time

to make them work.

143

00:06:16,708 --> 00:06:19,512

Are we ready to start our

journey through space and time?

144

00:06:19,545 --> 00:06:21,514

(all): Yes.

- Alright, let's do it.

145

00:06:21,547 --> 00:06:23,749

- Yay! Thank you, Captain Kuehn.

- Thank you.

146

00:06:23,782 --> 00:06:26,118

- I'm telling you guys,

you're gonna have so much fun

with this.

147

00:06:26,151 --> 00:06:28,120

Ask any questions

that you have, also. Okay?

148

00:06:28,153 --> 00:06:30,923

<i> - We then explored the rest
of the observatory,</i>

149

00:06:30,956 --> 00:06:34,593

<i> trying to find the pieces
we needed for our telescope.</i>

150

00:06:34,626 --> 00:06:36,863

(rhythmic music)

151

00:06:39,565 --> 00:06:41,567

- Look, a tube.

152

00:06:42,200 --> 00:06:44,570

<i> This side might have
everything else we need.</i>

153

00:06:44,603 --> 00:06:47,506

- Good work, team. It's time
to make your own telescope.

154

00:06:47,539 --> 00:06:48,841

Let's get building.

155

00:06:48,874 --> 00:06:50,709

<i> - We have two paper tubes.</i>

156

00:06:50,742 --> 00:06:52,545

<i> - Two magnifying glasses.</i>

157

00:06:52,578 --> 00:06:54,547

<i> - Plus, scissors and tape.</i>

158

00:06:54,580 --> 00:06:57,583

<i> - So we start by cutting
a cardboard tube.</i>

159

00:06:57,616 --> 00:07:00,853

<i> - Then, we took a magnifying
glass and put it at one end.</i>

160

00:07:00,886 --> 00:07:03,489

<i> - After that, we slid on
the second paper tube.</i>

161

00:07:03,522 --> 00:07:05,558

<i> - We punched out the other
magnifying glass</i>

162

00:07:05,591 --> 00:07:07,660

<i> and put it at the other end
of the tube.</i>

163

00:07:07,693 --> 00:07:10,062

<i> Then, all we had to do
was decorate.</i>

164

00:07:10,095 --> 00:07:12,598

<i> - Yeah, we did it!</i>

165

00:07:12,631 --> 00:07:15,034

<i> Now, we get to look through
the Naval Observatory's
telescope.</i>

166

00:07:15,067 --> 00:07:17,670

<i> - Geoff told us that looking
through in the daylight,</i>

167

00:07:17,703 --> 00:07:19,705

<i> we're gonna see a little
black dot on the sun.</i>

168

00:07:19,738 --> 00:07:20,906

<i> - That's a sun spot.</i>

169

00:07:20,939 --> 00:07:22,675

<i> - It's about the size
of the Earth.</i>

170

00:07:22,708 --> 00:07:24,643

- Wow!
- So, tell me what you saw.

171
00:07:24,676 --> 00:07:26,979
- It's so crazy just to see
like, all orange

172
00:07:27,012 --> 00:07:29,682
and to know that little tiny dot
is the size of the Earth.

173
00:07:29,715 --> 00:07:31,183
That really tells you
how huge the sun is.

174
00:07:31,216 --> 00:07:32,618
- Isn't that something!

175
00:07:32,651 --> 00:07:37,223
It gives us a sense of
the magnitude of it all.

176
00:07:37,256 --> 00:07:39,492
Earth is kind of small.

177
00:07:39,525 --> 00:07:40,993
- Yeah.
- Right?

178
00:07:41,026 --> 00:07:44,029
The Earth is like a speck.
- Yeah.

179
00:07:44,062 --> 00:07:45,965
- Compared to the sun.

180
00:07:45,998 --> 00:07:50,002
...what we have designed.
I mean, look at the design
of this thing.

181

00:07:50,035 --> 00:07:52,638

And the people,
the smart people,

182

00:07:52,671 --> 00:07:55,841

the scientists and the engineers
who came up with the idea

183

00:07:55,874 --> 00:07:58,010

that if you build something
that looks like that,

184

00:07:58,043 --> 00:07:59,512

you're gonna see the sun,

185

00:07:59,545 --> 00:08:01,080

and you can see the Moon. Right?
(laughing)

186

00:08:01,113 --> 00:08:02,948

Well, wait 'till you guys
see the Moon.

187

00:08:02,981 --> 00:08:07,753

I just... I don't know
what it is about those craters
on the Moon.

188

00:08:07,786 --> 00:08:10,656

Always dream with ambition.

189

00:08:10,689 --> 00:08:12,091

Have big dreams.

190

00:08:12,124 --> 00:08:14,126

You'll remember that?
(children): Yes.

191

00:08:14,159 --> 00:08:16,195

- Alright, I'll see you later.

(all): Thank you.

192

00:08:16,228 --> 00:08:19,599

<i> - Once the sun set, we were finally able to see the Moon.</i>

193

00:08:20,299 --> 00:08:23,602

- Whoa!

- Oh, my gosh!

194

00:08:23,635 --> 00:08:25,838

<i> - I can't believe how close it looks.</i>

195

00:08:25,871 --> 00:08:28,007

<i> - I can see the craters.</i>

196

00:08:28,040 --> 00:08:32,011

<i> - There's one crater that's almost 1600 miles in diameter.</i>

197

00:08:32,044 --> 00:08:34,980

<i> - So it's bigger than all the States we come from combined.</i>

198

00:08:35,013 --> 00:08:37,116

<i> - Seeing the Moon up close was incredible</i>

199

00:08:37,149 --> 00:08:39,585

<i> and made us all want to keep getting curious</i>

200

00:08:39,618 --> 00:08:41,687

<i> and exploring space with our telescopes at home.</i>

201

00:08:41,720 --> 00:08:44,156

<i>- And share what we were seeing
with our families.</i>

202

00:08:44,189 --> 00:08:47,293

<i> - I can't wait to keep
exploring with my telescope.</i>

203

00:08:47,326 --> 00:08:49,228

<i> Maybe I can see Mars.</i>

204

00:08:49,261 --> 00:08:52,264

- Congratulations,
Get Curious team. You did it!

205

00:08:52,297 --> 00:08:56,302

Remember, the Moon isn't
the only awesome thing
to discover in space.

206

00:08:56,335 --> 00:08:59,071

You can also see the Milky Way
or Mars.

207

00:08:59,104 --> 00:09:00,806

And those are the ones we know.

208

00:09:00,839 --> 00:09:03,676

The universe is full
of new discoveries to be made

209

00:09:03,709 --> 00:09:06,278

and maybe you'll be the ones
to make those discoveries.

210

00:09:06,311 --> 00:09:09,749

Just get curious and who knows
what you'll discover.

211

00:09:13,385 --> 00:09:15,087

- When you were a little girl,

212

00:09:15,120 --> 00:09:16,989

what did you wanna be
when you grew up?

213

00:09:17,022 --> 00:09:18,791

- I wanted to be a lawyer.