



1  
00:00:04,003 --> 00:00:05,338  
>> RIGHT NOW THE INTERNATIONAL

2  
00:00:05,338 --> 00:00:08,575  
SPACE STATION IS HURDLING AT

3  
00:00:08,575 --> 00:00:11,311  
17,500 MILES AN HOUR, 250 MILES

4  
00:00:11,311 --> 00:00:12,579  
ABOVE THE EARTH.

5  
00:00:12,579 --> 00:00:18,885  
>> AND IN ABOUT TEN MINUTES

6  
00:00:18,885 --> 00:00:20,553  
WE'LL HAVE A LIVE DEMONSTRATION.

7  
00:00:20,553 --> 00:00:23,757  
>> WE'LL BE TALKING WITH RANDY

8  
00:00:23,757 --> 00:00:24,124  
BRESNIK.

9  
00:00:24,124 --> 00:00:25,058  
>> THIS IS S.T.E.M. IN 30.

10  
00:00:25,058 --> 00:00:40,006  
■■

11  
00:00:43,576 --> 00:00:46,980  
>> THIS IS S.T.E.M. IN 30.

12  
00:00:46,980 --> 00:00:51,484  
■■

13  
00:00:58,158 --> 00:01:02,896

[ APPLAUSE ]

14

00:01:02,896 --> 00:01:04,631

>> HI, I'M MARTY.

15

00:01:04,631 --> 00:01:05,865

>> AND I'M BETH.

16

00:01:05,865 --> 00:01:08,034

>> WE ARE COMING TO TODAY YOU

17

00:01:08,034 --> 00:01:09,903

LIVE, FROM THE MOVING BEYOND

18

00:01:09,903 --> 00:01:12,138

EARTH GALLERY AT THE AIR AND

19

00:01:12,138 --> 00:01:14,674

SPACE MUSEUM IN WASHINGTON, D.C.

20

00:01:14,674 --> 00:01:16,910

>> AND WE HAVE A WHOLE BUNCH OF

21

00:01:16,910 --> 00:01:18,077

STUDENTS HERE TODAY.

22

00:01:18,077 --> 00:01:20,747

>> HERE WE HAVE THE SIXTH

23

00:01:20,747 --> 00:01:22,315

GRADERS FROM PROVIDENCE

24

00:01:22,315 --> 00:01:24,284

ELEMENTARY SCHOOL.

25

00:01:24,284 --> 00:01:24,717

WELCOME, GUYS.

26

00:01:24,717 --> 00:01:30,757

[ CHEERS AND APPLAUSE ]

27

00:01:30,757 --> 00:01:33,460

>> AND IN THE IMAX THEATER, WE

28

00:01:33,460 --> 00:01:42,669

HAVE THE WASHINGTON CLUB.

29

00:01:42,669 --> 00:01:45,238

>> AND WE HAVE VIDEO QUESTIONS,

30

00:01:45,238 --> 00:01:47,340

WHICH WE WILL SEE EARLIER IN THE

31

00:01:47,340 --> 00:01:47,640

SHOW.

32

00:01:47,640 --> 00:01:49,676

>> EARLIER IN THE SHOW, WE HAD A

33

00:01:49,676 --> 00:01:52,212

CHANCE TO VISIT RANDY BRESNIK IN

34

00:01:52,212 --> 00:01:52,545

HOUSTON.

35

00:01:52,545 --> 00:01:56,249

>> WE FILMED A SERIES OF VIDEOS

36

00:01:56,249 --> 00:01:58,551

CALLED ISS SCIENCE.

37

00:01:58,551 --> 00:02:02,222

THESE VIDEOS WERE A HANDS-ON

38

00:02:02,222 --> 00:02:04,357

CLASSROOM FRIENDLY DEMO, AND A

39

00:02:04,357 --> 00:02:06,826

LESSON PLAN SO TEACHERS CAN

40

00:02:06,826 --> 00:02:09,963

EXTEND THE LEARNING IN THEIR

41

00:02:09,963 --> 00:02:10,363

CLASSROOMS.

42

00:02:10,363 --> 00:02:11,764

>> LET'S SHOW YOU HOW TO SPOT

43

00:02:11,764 --> 00:02:12,599

THE STATION FROM YOUR OWN

44

00:02:12,599 --> 00:02:13,833

BACKYARD.

45

00:02:21,407 --> 00:02:24,043

>> HELLO, I'M RAN.

46

00:02:24,043 --> 00:02:25,745

HERE ARE MY FRIENDS MARTY AND

47

00:02:25,745 --> 00:02:26,212

[ INAUDIBLE ].

48

00:02:26,212 --> 00:02:28,815

>> RABDY WILL BE HEADED TO THE

49

00:02:28,815 --> 00:02:29,916

INTERNATIONAL SPACE STATION

50

00:02:29,916 --> 00:02:31,784

WHERE HE WILL SPEND SIX MONTHS

51

00:02:31,784 --> 00:02:33,486  
IN LOW-EARTH ORBIT.

52

00:02:33,486 --> 00:02:35,455  
>> HE WILL BECOME THE FIRST

53

00:02:35,455 --> 00:02:37,056  
MARINE COMMANDER OF THE

54

00:02:37,056 --> 00:02:38,391  
INTERNATIONAL SPACE STATION.

55

00:02:38,391 --> 00:02:40,593  
>> AND WHILE I'M UP THERE, BETH

56

00:02:40,593 --> 00:02:43,263  
AND MARTY WILL BRING YOU

57

00:02:43,263 --> 00:02:43,630  
UPDATES.

58

00:02:43,630 --> 00:02:45,198  
>> AND YOU CAN USE THOSE LESSON

59

00:02:45,198 --> 00:02:46,332  
PLANS IN YOUR CLASSROOM.

60

00:02:46,332 --> 00:02:47,800  
>> YOU CAN LITERALLY GO OUTSIDE

61

00:02:47,800 --> 00:02:53,172  
IN YOUR BACKYARD, AND SAY HELLO

62

00:02:53,172 --> 00:02:54,974  
TO RANDY WHILE HE IS WORKING.

63

00:02:54,974 --> 00:02:58,111

>> HERE IS HOW YOU CAN SPOT THE

64  
00:02:58,111 --> 00:02:58,878  
INTERNATIONAL SPACE STATION FROM

65  
00:02:58,878 --> 00:02:59,913  
YOUR BACKYARD.

66  
00:02:59,913 --> 00:03:03,516  
>> AND PLEASE BE SURE TO WAVE.

67  
00:03:03,516 --> 00:03:05,818  
>> WE CAN SPOT THE INTERNATIONAL

68  
00:03:05,818 --> 00:03:07,387  
SPACE STATION FROM OUR BACKYARD,

69  
00:03:07,387 --> 00:03:09,289  
AND ALL WE NEED TO KNOW IS WHEN

70  
00:03:09,289 --> 00:03:10,790  
AND WHERE TO LOOK.

71  
00:03:10,790 --> 00:03:13,560  
LET'S START BY GOING TO THE NASA

72  
00:03:13,560 --> 00:03:13,927  
WEBSITE.

73  
00:03:13,927 --> 00:03:16,429  
THIS WILL GIVE US ALL OF THE

74  
00:03:16,429 --> 00:03:17,430  
INFORMATION WE NEED.

75  
00:03:17,430 --> 00:03:18,998  
NOW, LET'S TRY TO SPOT THE

76

00:03:18,998 --> 00:03:21,434

STATION.

77

00:03:21,434 --> 00:03:24,504

WE SEE ON THIS PATH THE STATION

78

00:03:24,504 --> 00:03:27,640

WILL BECOME VISIBLE AT NORTH

79

00:03:27,640 --> 00:03:29,509

NORTHWEST AT 8:32 P.M.

80

00:03:29,509 --> 00:03:31,611

LET'S BE SURE WE ARE ON TIME,

81

00:03:31,611 --> 00:03:32,912

BECAUSE THE SPACE STATION WON'T

82

00:03:32,912 --> 00:03:33,513

WAIT.

83

00:03:33,513 --> 00:03:36,316

FIRST, LET'S USE OUR COMPASS TO

84

00:03:36,316 --> 00:03:37,050

FIND WEST.

85

00:03:37,050 --> 00:03:40,019

NOW FIND NORTH.

86

00:03:40,019 --> 00:03:45,892

NORTHWEST IS BETWEEN NORTH AND

87

00:03:45,892 --> 00:03:48,361

WEST.

88

00:03:48,361 --> 00:03:49,629

NORTH, NORTHWEST IS BETWEEN WEST

89

00:03:49,629 --> 00:03:50,964  
AND NORTH.

90

00:03:50,964 --> 00:03:51,264  
OKAY.

91

00:03:51,264 --> 00:03:51,864  
GOT IT.

92

00:03:51,864 --> 00:03:55,068  
NEXT WE SEE IT'S A GOING TO

93

00:03:55,068 --> 00:04:01,341  
DISAPPEAR IN THE EAST.

94

00:04:01,341 --> 00:04:06,479  
GOT THAT LOCATION.

95

00:04:06,479 --> 00:04:08,681  
THE ENTIRE VISIBLE PATH WILL

96

00:04:08,681 --> 00:04:10,750  
HAPPEN BETWEEN THESE TWO

97

00:04:10,750 --> 00:04:11,117  
LOCATIONS.

98

00:04:11,117 --> 00:04:12,719  
NOW HEIGHT IS MEASURED IN

99

00:04:12,719 --> 00:04:13,052  
DEGREES.

100

00:04:13,052 --> 00:04:16,289  
THERE'S A SIMPLE WAY TO

101

00:04:16,289 --> 00:04:17,857

DETERMINE THIS HEIGHT.

102

00:04:17,857 --> 00:04:19,892

IF YOU PLACE THE BOTTOM OF YOUR

103

00:04:19,892 --> 00:04:22,128

FIST ON THE HORIZON, THE LINE

104

00:04:22,128 --> 00:04:23,796

WHERE THE SKY MEETS THE GROUND,

105

00:04:23,796 --> 00:04:26,232

THE TOP OF YOUR FIST WILL BE

106

00:04:26,232 --> 00:04:27,200

APPROXIMATELY 10 DEGREES.

107

00:04:27,200 --> 00:04:29,502

YOU CAN THEN STACK YOUR FISTS ON

108

00:04:29,502 --> 00:04:32,538

TOP OF EACH OTHER TO REACH, 20,

109

00:04:32,538 --> 00:04:35,174

30, 40 DEGREES OR HIGHER.

110

00:04:35,174 --> 00:04:38,111

TONIGHT THE SPACE STATION WILL

111

00:04:38,111 --> 00:04:39,979

APPEAR AT 10 DEGREES NORTH

112

00:04:39,979 --> 00:04:40,413

NORTHWEST.

113

00:04:40,413 --> 00:04:42,749

IF I PLACE ONE FIST IN FRONT OF

114

00:04:42,749 --> 00:04:44,083

ME, WHILE LOOKING NORTH

115

00:04:44,083 --> 00:04:45,485

NORTHWEST, THIS IS WHERE IT

116

00:04:45,485 --> 00:04:46,986

SHOULD FIRST BECOME VISIBLE.

117

00:04:46,986 --> 00:04:47,754

GOT IT.

118

00:04:47,754 --> 00:04:49,589

IT WILL DISAPPEAR AT 20 DEGREES

119

00:04:49,589 --> 00:04:53,359

EAST.

120

00:04:53,359 --> 00:04:54,027

RIGHT THERE.

121

00:04:54,027 --> 00:04:56,996

AT ITS HIGHEST POINT, IT WILL

122

00:04:56,996 --> 00:05:01,267

REACH 40 DEGREES.

123

00:05:01,267 --> 00:05:01,601

BINGO.

124

00:05:01,601 --> 00:05:05,705

WE NOW HAVE A GOOD IDEA OF THE

125

00:05:05,705 --> 00:05:06,606

APPROXIMATE PATH THAT THE SPACE

126  
00:05:06,606 --> 00:05:08,608  
STATION WILL BE TRAVELING ALONG.

127  
00:05:08,608 --> 00:05:09,809  
IT'S ALMOST TIME.

128  
00:05:09,809 --> 00:05:11,544  
LET'S LOOK IN THE GENERAL

129  
00:05:11,544 --> 00:05:13,446  
DIRECTION OF WHERE THE PATHS

130  
00:05:13,446 --> 00:05:15,381  
WILL BECOME VISIBLE.

131  
00:05:15,381 --> 00:05:17,316  
WE WILL SCAN A WIDER AREA IN

132  
00:05:17,316 --> 00:05:19,419  
CASE WE ARE A LITTLE OFF WITH

133  
00:05:19,419 --> 00:05:20,787  
OUR MEASUREMENTS.

134  
00:05:20,787 --> 00:05:22,355  
THE STATION DOES NOT HAVE LIGHTS

135  
00:05:22,355 --> 00:05:23,990  
OUTSIDE THAT ARE VISIBLE FROM

136  
00:05:23,990 --> 00:05:24,323  
EARTH.

137  
00:05:24,323 --> 00:05:26,059  
WHEN WE SEE IT, WE ARE SEEING

138  
00:05:26,059 --> 00:05:28,227

THE SUN REFLECTING OFF OF IT.

139

00:05:28,227 --> 00:05:29,662

ONCE THE STATION BECOMES

140

00:05:29,662 --> 00:05:32,632

VISIBLE, IT WILL TAKE ABOUT SIX

141

00:05:32,632 --> 00:05:35,234

MINUTES TO CROSS ACROSS THE SKY.

142

00:05:35,234 --> 00:05:37,203

IT WILL LOOK LIKE A VERY BRIGHT

143

00:05:37,203 --> 00:05:39,305

STAR THAT IS TRAVELING VERY FAST

144

00:05:39,305 --> 00:05:40,740

ACROSS THE SKY.

145

00:05:40,740 --> 00:05:41,941

HERE IT COMES.

146

00:05:41,941 --> 00:05:45,445

WAVE TO THE ASTRONAUTS. MEET YO.

147

00:05:45,445 --> 00:05:46,846

>> THAT'S WHAT YOU GET FOR

148

00:05:46,846 --> 00:05:49,382

STEALING MY PHONE AND TAKING

149

00:05:49,382 --> 00:05:49,716

SELFIES.

150

00:05:49,716 --> 00:05:51,384

>> WHILE WE WERE IN HOUSTON WE

151  
00:05:51,384 --> 00:05:53,186  
GOT A CHANCE TO DO A LOT OF

152  
00:05:53,186 --> 00:05:55,755  
DIFFERENT THINGS, BESIDE WORKING

153  
00:05:55,755 --> 00:05:57,990  
WITH COMRADE BRESNIK, WE GOT A

154  
00:05:57,990 --> 00:06:00,526  
CHANCE TO SEE HIM DO VIRTUAL

155  
00:06:00,526 --> 00:06:01,527  
REALITY TRAINING.

156  
00:06:01,527 --> 00:06:03,730  
WHICH WAS ONE OF THE SCARIEST

157  
00:06:03,730 --> 00:06:06,065  
THINGS I HAVE EVER SEEN.

158  
00:06:06,065 --> 00:06:08,000  
BECAUSE EVEN THOUGH HE WAS JUST

159  
00:06:08,000 --> 00:06:09,235  
SITTING IN THIS CHAIR WITH

160  
00:06:09,235 --> 00:06:11,871  
GOGGLES ON, THEY REHEARSED WHAT

161  
00:06:11,871 --> 00:06:14,140  
WOULD HAPPEN IF HE DRIFTED AWAY

162  
00:06:14,140 --> 00:06:15,975  
FROM THE EMERGENCY SPACE

163  
00:06:15,975 --> 00:06:16,309

STATION.

164

00:06:16,309 --> 00:06:18,277

JUST THE THOUGHT OF THAT IS

165

00:06:18,277 --> 00:06:20,313

INCREDIBLY SCARY, AND IN OCTOBER

166

00:06:20,313 --> 00:06:22,248

HE WILL BE DOING TWO OR THREE

167

00:06:22,248 --> 00:06:22,849

SPACE WALKS.

168

00:06:22,849 --> 00:06:24,617

>> THE OTHER THING THAT WAS NEAT

169

00:06:24,617 --> 00:06:26,886

TO SEE WHEN WE WENT TO JOHNSON

170

00:06:26,886 --> 00:06:33,126

SPACE CENTER WAS THEY HAVE A

171

00:06:33,126 --> 00:06:35,394

SATURN V ROCKET.

172

00:06:35,394 --> 00:06:37,764

AND IT'S HUGE, BUT WHAT IS

173

00:06:37,764 --> 00:06:39,966

INCREDIBLE IS THERE'S ONLY A

174

00:06:39,966 --> 00:06:41,968

TINY PART THAT ACTUALLY COMES

175

00:06:41,968 --> 00:06:42,268

BACK.

176  
00:06:42,268 --> 00:06:43,770  
>> YEAH, WE'RE ABOUT ONE MINUTE

177  
00:06:43,770 --> 00:06:47,573  
FROM GETTING THE SIGNAL FROM THE

178  
00:06:47,573 --> 00:06:49,408  
INTERNATIONAL SPACE STATION.

179  
00:06:49,408 --> 00:06:51,544  
THE CRAZY PART ABOUT THAT ROCKET

180  
00:06:51,544 --> 00:06:56,516  
IS IT'S HUGE, BUT THE COMMAND

181  
00:06:56,516 --> 00:06:58,484  
MODULE WITHOUT FIT HERE IN THIS

182  
00:06:58,484 --> 00:06:58,851  
GALLERY.

183  
00:06:58,851 --> 00:07:00,419  
>> AND THEY ARE GETTING READY TO

184  
00:07:00,419 --> 00:07:04,624  
GO TO SPACE CENTER HOUSTON, AND

185  
00:07:04,624 --> 00:07:12,398  
THE APOLLO 11 MODULE, BROUGHT

186  
00:07:12,398 --> 00:07:14,634  
THE FIRST ASTRONAUTS THAT WALKED

187  
00:07:14,634 --> 00:07:17,036  
ON THE MOON BACK, BUT THEY ALSO

188  
00:07:17,036 --> 00:07:19,438

HAVE APOLLO 17 MODULE, WHICH WAS

189

00:07:19,438 --> 00:07:21,374

THE LAST TO BRING ASTRONAUTS

190

00:07:21,374 --> 00:07:21,674

BACK.

191

00:07:21,674 --> 00:07:23,209

SO YOU GET TO SEE THE FIRST AND

192

00:07:23,209 --> 00:07:23,910

THE LAST.

193

00:07:23,910 --> 00:07:25,478

>> THE ONLY TIME YOU GET TO SEE

194

00:07:25,478 --> 00:07:26,913

TWO OF THEM IN THE SAME

195

00:07:26,913 --> 00:07:27,580

BUILDING.

196

00:07:27,580 --> 00:07:29,081

IT'S REALLY, REALLY COOL.

197

00:07:29,081 --> 00:07:30,449

WE'RE GETTING REALLY CLOSE TO

198

00:07:30,449 --> 00:07:32,084

THE DOWN LINK STARTING.

199

00:07:32,084 --> 00:07:33,953

SO WE SHOULD BE SEEING MISSION

200

00:07:33,953 --> 00:07:34,487

CONTROL REAL QUICK.

201  
00:07:34,487 --> 00:07:38,391  
[ APPLAUSE ]BE.

202  
00:09:19,959 --> 00:09:21,394  
AND [ INAUDIBLE ] 25,000

203  
00:09:21,394 --> 00:09:21,827  
[ INAUDIBLE ].

204  
00:09:21,827 --> 00:09:24,363  
>> HI, MY NAME IS LUKE BERKELEY,

205  
00:09:24,363 --> 00:09:25,932  
AND IS IT HARD TO MOVE AROUND

206  
00:09:25,932 --> 00:09:30,036  
THE SPACE STATION?

207  
00:09:31,904 --> 00:09:34,774  
>> IT'S EASY TO MOVE AROUND.

208  
00:09:34,774 --> 00:09:37,977  
I DON'T KNOW, YOU TELL ME.

209  
00:09:37,977 --> 00:09:42,281  
[ LAUGHTER ]

210  
00:09:46,752 --> 00:09:50,289  
>> WHAT DO YOU THINK?

211  
00:09:50,289 --> 00:09:53,459  
WE ALSO KID AROUND.

212  
00:09:53,459 --> 00:09:58,564  
[ LAUGHTER ]

213  
00:10:01,000 --> 00:10:02,768

>> SO DO YOU THINK?

214

00:10:02,768 --> 00:10:07,740

PRETTY EASY TO MOVE AROUND?

215

00:10:07,740 --> 00:10:10,843

>> HI, MY NAME IS [ INAUDIBLE ].

216

00:10:10,843 --> 00:10:12,144

CAN YOU WATCH TV AND YOUTUBE IN

217

00:10:12,144 --> 00:10:17,049

SPACE?

218

00:10:17,049 --> 00:10:19,585

>> WE CAN WATCH TV.

219

00:10:19,585 --> 00:10:22,588

WE -- THEY SEND US UP TVS AND

220

00:10:22,588 --> 00:10:22,922

MOVIES.

221

00:10:22,922 --> 00:10:24,724

AND WE WATCH IT ON A COMPUTER.

222

00:10:24,724 --> 00:10:26,392

WE ALSO HAVE A BIG SCREEN THAT

223

00:10:26,392 --> 00:10:29,261

WE CAN WATCH MOVIES ON FRIDAY

224

00:10:29,261 --> 00:10:29,962

NIGHT.

225

00:10:29,962 --> 00:10:31,564

YOUTUBE, THE INTERNET CAPABILITY

226

00:10:31,564 --> 00:10:33,499

IS UP HERE, BUT I HAVEN'T TAKEN

227

00:10:33,499 --> 00:10:36,268

THE TIME TO LOOK AT ANY YOUTUBE

228

00:10:36,268 --> 00:10:36,702

STUFF.

229

00:10:36,702 --> 00:10:38,871

I'LL SAVE THAT WHEN I GET BACK

230

00:10:38,871 --> 00:10:41,040

DOWN ON THE GROUND AND I DON'T

231

00:10:41,040 --> 00:10:42,475

HAVE THE MAGNIFICENT VIEW OF

232

00:10:42,475 --> 00:10:43,843

EARTH THAT WE HAVE UP HERE.

233

00:10:43,843 --> 00:10:45,811

>> HI, MY NAME IS IS EMILY.

234

00:10:45,811 --> 00:10:47,346

MY QUESTION IS HOW DOES WATER

235

00:10:47,346 --> 00:10:53,552

ACT IN SPACE?

236

00:10:53,552 --> 00:10:56,288

>> THAT IS A GREAT QUESTION.

237

00:10:56,288 --> 00:10:58,357

WHY DON'T WE FIND OUT.

238

00:10:58,357 --> 00:11:01,394

HERE IS ONE OF OUR DRINK BAGS.

239

00:11:01,394 --> 00:11:04,230

THIS IS APPLE CIDER.

240

00:11:04,230 --> 00:11:04,663

ALL RIGHT.

241

00:11:04,663 --> 00:11:06,832

WE HAVE TO HAVE A LOCK ON THE

242

00:11:06,832 --> 00:11:07,233

STRAW.

243

00:11:07,233 --> 00:11:08,567

OTHERWISE THE WATER WOULD COME

244

00:11:08,567 --> 00:11:08,834

OUT.

245

00:11:08,834 --> 00:11:10,703

NOW ON EARTH, LIKE WHEN IT

246

00:11:10,703 --> 00:11:12,204

RAINS, YOUR RAIN JACKET OR THE

247

00:11:12,204 --> 00:11:14,273

WINDOW ON YOUR CAR, THE WATER

248

00:11:14,273 --> 00:11:15,841

DOESN'T JUST FALL OFF, RIGHT,

249

00:11:15,841 --> 00:11:18,477

SOME OF IT STICKS, RIGHT?

250

00:11:18,477 --> 00:11:23,282

AND YOU SEE DROPPETS ON WINDOWS

251  
00:11:23,282 --> 00:11:25,051  
BECAUSE SURFACE TENSION OF THE

252  
00:11:25,051 --> 00:11:26,819  
WATER HOLDS IT IN PLACE.

253  
00:11:26,819 --> 00:11:28,721  
I'LL SHOW YOU WHAT SURFACE

254  
00:11:28,721 --> 00:11:31,857  
TENSION DOES UP HERE.

255  
00:11:45,204 --> 00:11:45,604  
[ LAUGHTER ]

256  
00:11:45,604 --> 00:11:47,339  
>> THE WATER ALL STICKS TO

257  
00:11:47,339 --> 00:11:48,541  
ITSELF AND FORMS A BUBBLE.

258  
00:11:48,541 --> 00:11:50,810  
SO WHEN WE EXERCISE THE WATER

259  
00:11:50,810 --> 00:11:52,945  
STICKS ALL OVER OUR FACE AND WE

260  
00:11:52,945 --> 00:11:54,914  
HAVE TO WIPE IT OFF WITH A

261  
00:11:54,914 --> 00:11:55,214  
TOWEL.

262  
00:11:55,214 --> 00:11:57,049  
YOU HAVE TO BE CAREFUL NOT TO

263  
00:11:57,049 --> 00:11:58,517

SHAKE YOUR HEARD TOO HARD OR THE

264

00:11:58,517 --> 00:12:01,654

WATER GOES FLYING OFF.

265

00:12:01,654 --> 00:12:04,256

>> MY NAME IS DELANEY, AND I WAS

266

00:12:04,256 --> 00:12:06,292

WONDERING, WHEN DO YOU KNOW WHAT

267

00:12:06,292 --> 00:12:08,527

TIME TO GO TO BED?

268

00:12:08,527 --> 00:12:09,595

>> ANOTHER GOOD QUESTION.

269

00:12:09,595 --> 00:12:11,497

WE DON'T KNOW WHEN IT IS TIME TO

270

00:12:11,497 --> 00:12:13,833

GO TO BED, BECAUSE THE SUN GOES

271

00:12:13,833 --> 00:12:15,601

DOWN 16 TIMES A DAY FOR US.

272

00:12:15,601 --> 00:12:17,470

SO WE HAVE TO USE OUR WATCHES TO

273

00:12:17,470 --> 00:12:19,605

TELL US WHEN IT'S TIME TO GO TO

274

00:12:19,605 --> 00:12:19,872

BED.

275

00:12:19,872 --> 00:12:22,174

SAME THING, YOU KNOW, YOU DON'T

276

00:12:22,174 --> 00:12:24,043

WAKE UP WHEN THE SUN COMES UP,

277

00:12:24,043 --> 00:12:26,078

BECAUSE THAT HAPPENS 16 TIMES

278

00:12:26,078 --> 00:12:26,345

TOO.

279

00:12:26,345 --> 00:12:28,481

SO WE USE OUR WATCHES, WE HAVE A

280

00:12:28,481 --> 00:12:30,950

WORK TEAM, WE HAVE EXERCISE, AND

281

00:12:30,950 --> 00:12:33,519

THEN USUALLY WE GET INTO BED A

282

00:12:33,519 --> 00:12:36,388

LITTLE BIT OF TIME TO BRUSH OUR

283

00:12:36,388 --> 00:12:37,957

TEETH, CALL HOME, WATCH A LITTLE

284

00:12:37,957 --> 00:12:39,692

BIT OF TV, AND THEN WE GO TO

285

00:12:39,692 --> 00:12:41,227

SLEEP AND START THE NEXT DAY.

286

00:12:41,227 --> 00:12:43,562

>> HI, WHAT DO YOU DO IN YOUR

287

00:12:43,562 --> 00:12:46,232

FREE TIME IN SPACE?

288

00:12:48,467 --> 00:12:51,036

>> I ALREADY MENTIONED WE HAVE

289

00:12:51,036 --> 00:12:53,939

GOT THIS AMAZING BLUE MARBLE

290

00:12:53,939 --> 00:12:55,641

UNDERNEATH US, SO WE'RE GOING

291

00:12:55,641 --> 00:12:58,144

AROUND 16 TIMES A DAY, OR 6

292

00:12:58,144 --> 00:13:00,312

MILES EVERY SECOND IS WHAT WE'RE

293

00:13:00,312 --> 00:13:01,680

COVERING OVER THE GROUND, AND IT

294

00:13:01,680 --> 00:13:04,283

IS REALLY BEAUTIFUL.

295

00:13:04,283 --> 00:13:07,052

SO IN MY FREE TIME, IT'S A LOT

296

00:13:07,052 --> 00:13:08,721

OF WHAT I LIKE TO DO.

297

00:13:08,721 --> 00:13:10,456

TAKE PICTURES, BECAUSE THE VIEW

298

00:13:10,456 --> 00:13:12,558

UP HERE IS AMAZING, AND THE

299

00:13:12,558 --> 00:13:13,859

COLORS ARE SO DIFFERENT, AND

300

00:13:13,859 --> 00:13:15,294

EVERY TIME YOU GO AROUND THE

301  
00:13:15,294 --> 00:13:17,062  
CLOUDS ARE DIFFERENT, AND

302  
00:13:17,062 --> 00:13:18,464  
THERE'S DIFFERENT

303  
00:13:18,464 --> 00:13:20,299  
THINGS -- WHETHER A CITY IS IN

304  
00:13:20,299 --> 00:13:21,767  
DARKNESS OR IN LIGHT, AND

305  
00:13:21,767 --> 00:13:23,269  
DIFFERENT SEASONS, AND SO IT'S

306  
00:13:23,269 --> 00:13:25,838  
JUST AMAZING FOR US TO BE ABLE

307  
00:13:25,838 --> 00:13:27,673  
TO HAVE THE OPPORTUNITY TO SEE

308  
00:13:27,673 --> 00:13:30,976  
OUR BEAUTIFUL PLANET.

309  
00:13:30,976 --> 00:13:32,878  
WE WISH ALL OF YOU COULD SEE IT

310  
00:13:32,878 --> 00:13:34,880  
LIKE THIS, BECAUSE IT IS

311  
00:13:34,880 --> 00:13:36,415  
AMAZING, AND YOU REALLY FEEL

312  
00:13:36,415 --> 00:13:38,517  
HUMBLED TO BE ABLE TO SEE OUR

313  
00:13:38,517 --> 00:13:39,952

BEAUTIFUL PLANET FROM THIS POINT

314

00:13:39,952 --> 00:13:40,586  
OF VIEW.

315

00:13:40,586 --> 00:13:42,254  
>> HI, RANDY, MY NAME IS

316

00:13:42,254 --> 00:13:43,489  
[ INAUDIBLE ], AND I WAS

317

00:13:43,489 --> 00:13:46,258  
WONDERING WHAT HAPPENED IF

318

00:13:46,258 --> 00:13:49,261  
SOMEONE GETS SICK?

319

00:13:49,261 --> 00:13:50,763  
>> THAT'S A GOOD QUESTION,

320

00:13:50,763 --> 00:13:52,431  
BECAUSE YOUR BODY, YOUR WHOLE

321

00:13:52,431 --> 00:13:54,500  
LIFE HAS BEEN IN GRAVITY, AND

322

00:13:54,500 --> 00:13:56,869  
WHEN YOU GET UP TO ZERO GRAVITY,

323

00:13:56,869 --> 00:13:59,371  
SOMETIMES IT DOESN'T FEEL SO

324

00:13:59,371 --> 00:13:59,672  
GOOD.

325

00:13:59,672 --> 00:14:07,446  
SO WE HAVE SPECIAL BAGS CALL

326

00:14:07,446 --> 00:14:09,715

'EMESIS BAGS THAT WE HAVE IN CASE

327

00:14:09,715 --> 00:14:12,618

SOMEBODY FEELS SICK.

328

00:14:12,618 --> 00:14:15,721

BECAUSE YOU SAW THE WATER

329

00:14:15,721 --> 00:14:16,956

DROPLET BAG.

330

00:14:16,956 --> 00:14:18,824

WELL, IMAGINE IF YOU GET SICK.

331

00:14:18,824 --> 00:14:20,392

THAT GOES EVERYWHERE.

332

00:14:20,392 --> 00:14:22,795

IT'S JUST LIKE A BAG ON AN

333

00:14:22,795 --> 00:14:23,195

AIRLINE.

334

00:14:23,195 --> 00:14:24,964

IT'S A BAG TO COLLECT WHAT

335

00:14:24,964 --> 00:14:27,633

HAPPENS WHEN YOU GET SICK, BUT

336

00:14:27,633 --> 00:14:29,301

BECAUSE THE STUFF FLOATS, YOU

337

00:14:29,301 --> 00:14:31,170

CAN DO WHAT YOU HAVE TO ON THE

338

00:14:31,170 --> 00:14:34,506

INSIDE, AND THEN YOU HAVE A NICE

339

00:14:34,506 --> 00:14:36,675

LITTLE CLOTH ATTACHED, SO YOU

340

00:14:36,675 --> 00:14:39,211

CAN WIPE YOUR FACE, THEN YOU CAN

341

00:14:39,211 --> 00:14:40,512

STUFF IT INSIDE.

342

00:14:40,512 --> 00:14:42,648

THEN YOU HAVE EVERYTHING INSIDE

343

00:14:42,648 --> 00:14:47,786

THE WHITE BAG, YOU TURN THE BAG

344

00:14:47,786 --> 00:14:50,122

INSIDE OUT, YOU DO THE ZIPLOC

345

00:14:50,122 --> 00:14:51,323

AND YOU THROW IT AWAY.

346

00:14:51,323 --> 00:14:55,728

YOU HAVE NO MESS, NO SMELL.

347

00:14:55,728 --> 00:15:01,200

>> HI, MY NAME IS ALLAY

348

00:15:01,200 --> 00:15:02,668

ALLAY -- ALANA.

349

00:15:02,668 --> 00:15:04,536

HOW DO YOU COPE WITH MISSING

350

00:15:04,536 --> 00:15:06,338

YOUR FAMILY?

351  
00:15:06,338 --> 00:15:09,608  
>> THAT'S TOUGH, BECAUSE I HAVE

352  
00:15:09,608 --> 00:15:11,710  
A 7-YEAR-OLD DAUGHTER,

353  
00:15:11,710 --> 00:15:12,511  
11-YEAR-OLD SON, SECOND GRADE,

354  
00:15:12,511 --> 00:15:14,680  
AND JUST STARTED MIDDLE SCHOOL,

355  
00:15:14,680 --> 00:15:18,851  
SIXTH GRADE, AND OBVIOUSLY MY

356  
00:15:18,851 --> 00:15:21,387  
WIFE WHO I HAVE BEEN MARRIED TO

357  
00:15:21,387 --> 00:15:22,755  
FOR 14 YEARS NOW, AND I MISS

358  
00:15:22,755 --> 00:15:24,089  
THEM A LOT.

359  
00:15:24,089 --> 00:15:25,357  
AND IT IS HARD.

360  
00:15:25,357 --> 00:15:26,825  
BUT JUST LIKE MILITARY PEOPLE OR

361  
00:15:26,825 --> 00:15:28,160  
PEOPLE IN THE STATE DEPARTMENT,

362  
00:15:28,160 --> 00:15:29,695  
OR PLACES WHERE WE'RE NOT ABLE

363  
00:15:29,695 --> 00:15:32,231

TO BE AT HOME, YOU FIND WAYS.

364

00:15:32,231 --> 00:15:34,400

YOU CAN COMMUNICATE EMAIL.

365

00:15:34,400 --> 00:15:36,535

THAT'S REALLY A NICE WAY TO STAY

366

00:15:36,535 --> 00:15:37,536

IN TOUCH.

367

00:15:37,536 --> 00:15:40,339

SENDING PICTURES BACK AND FORTH.

368

00:15:40,339 --> 00:15:43,275

AND NOW WE HAVE AN INTERNET

369

00:15:43,275 --> 00:15:44,777

PROTOCOL PHONE THAT I CAN HOP ON

370

00:15:44,777 --> 00:15:47,112

AND CALL DOWN TO EARTH ANYWHERE

371

00:15:47,112 --> 00:15:49,648

ON EARTH ANY PHONE NUMBER AND

372

00:15:49,648 --> 00:15:51,517

TALK TO PEOPLE, AND THE

373

00:15:51,517 --> 00:15:53,519

COMMUNICATION IS SO GOOD THAT IT

374

00:15:53,519 --> 00:15:55,187

SOUNDS LIKE I AM DOWN THERE

375

00:15:55,187 --> 00:15:56,355

USING A CELL PHONE.

376

00:15:56,355 --> 00:15:58,524

AND SO THAT'S A REALLY GOOD WAY,

377

00:15:58,524 --> 00:16:00,626

AND THEN FOR THOSE OF US UP

378

00:16:00,626 --> 00:16:02,361

HERE, WE ALSO HAVE WEEKLY

379

00:16:02,361 --> 00:16:04,196

CONFERENCES WITH VIDEO, KIND OF

380

00:16:04,196 --> 00:16:05,964

LIKE SKYPE THAT WE CAN SEE OUR

381

00:16:05,964 --> 00:16:07,533

FAMILIES AND TALK TO THEM.

382

00:16:07,533 --> 00:16:09,501

SO MAKES IT SEEM NOT SO FAR

383

00:16:09,501 --> 00:16:09,935

AWAY.

384

00:16:09,935 --> 00:16:11,370

SO IT'S REALLY, REALLY GOOD IN

385

00:16:11,370 --> 00:16:13,172

THAT REGARD.

386

00:16:13,172 --> 00:16:15,374

>> HI, MY NAME IS RILEY, AND I

387

00:16:15,374 --> 00:16:17,710

WAS WONDERING WHAT DO YOU DO ON

388

00:16:17,710 --> 00:16:21,180

A NORMAL DAY BASIS?

389

00:16:21,180 --> 00:16:22,414

>> WELL I DON'T KNOW IF YOU

390

00:16:22,414 --> 00:16:25,017

CAN -- HOW MUCH YOU CAN SEE IN

391

00:16:25,017 --> 00:16:25,484

HERE.

392

00:16:25,484 --> 00:16:27,619

BUT WE HAVE ROBOTIC

393

00:16:27,619 --> 00:16:28,053

WORKSTATIONS.

394

00:16:28,053 --> 00:16:29,254

WE HAVE CAMERAS.

395

00:16:29,254 --> 00:16:30,923

WE HAVE EXPERIMENTS OFF TO THE

396

00:16:30,923 --> 00:16:31,523

SIDE HIGHER.

397

00:16:31,523 --> 00:16:33,926

WE HAVE AN EXERCISE DEVICE.

398

00:16:33,926 --> 00:16:36,328

WE HAVE EXPERIMENTS IN COLD -- A

399

00:16:36,328 --> 00:16:37,463

THING CALLED [ INAUDIBLE ] LIKE

400

00:16:37,463 --> 00:16:40,099

A REFRIGERATOR.

401  
00:16:40,099 --> 00:16:42,401  
WE DO SCIENCE, WHERE WE CAN GO

402  
00:16:42,401 --> 00:16:44,636  
AHEAD AND WORK IN CLUB BOXES.

403  
00:16:44,636 --> 00:16:46,372  
WE WORK IN SCIENCE THAT INVOLVES

404  
00:16:46,372 --> 00:16:50,075  
STUFF THAT WE DO WITH METALS AND

405  
00:16:50,075 --> 00:16:51,377  
FIRE AND FLUIDS.

406  
00:16:51,377 --> 00:16:54,346  
WE HAVE EXPERIMENTS ALL OVER THE

407  
00:16:54,346 --> 00:16:55,347  
SPACE STATION.

408  
00:16:55,347 --> 00:16:57,483  
TWO AND A HALF HOURS A DAY WE

409  
00:16:57,483 --> 00:17:00,152  
LIFT WEIGHTS OR RUN, OR BIKING,

410  
00:17:00,152 --> 00:17:02,254  
TO KEEP OUR BODIES STRONG.

411  
00:17:02,254 --> 00:17:04,323  
BECAUSE OUR BONES CAN LOSE

412  
00:17:04,323 --> 00:17:06,091  
DENSITY, AND THAT'S NOT GOOD.

413  
00:17:06,091 --> 00:17:10,863

SO WE HAVE GOT TO COMBAT THAT.

414

00:17:10,863 --> 00:17:14,333

WE ALSO SPEND TIME DOING -- JUST

415

00:17:14,333 --> 00:17:15,901

AVERAGE STUFF SO THAT HOPEFULLY

416

00:17:15,901 --> 00:17:17,436

WHEN WE SHOW YOU ALL OF THIS

417

00:17:17,436 --> 00:17:19,605

COOL STUFF THAT IS OUT THERE FOR

418

00:17:19,605 --> 00:17:21,106

SCIENCE, ALL OF THIS TECHNOLOGY

419

00:17:21,106 --> 00:17:22,541

THAT WE'RE DEVELOPING TO MAKE

420

00:17:22,541 --> 00:17:24,676

ALL OF THIS POSSIBLE, ALL OF THE

421

00:17:24,676 --> 00:17:26,678

ENGINEERING THAT GOES INTO, HOW

422

00:17:26,678 --> 00:17:28,947

DO WE BUILD A SPACE STATION MADE

423

00:17:28,947 --> 00:17:30,983

BY ALL OF THESE DIFFERENT

424

00:17:30,983 --> 00:17:33,318

COUNTRIES BY PLACES ALL OVER THE

425

00:17:33,318 --> 00:17:35,220

WORLD, THAT WE ASSEMBLE IT FOR

426

00:17:35,220 --> 00:17:36,822

THE FIRST TIME IN SPACE, AND IT

427

00:17:36,822 --> 00:17:38,957

ALL FITS, AND IT ALL WORKS.

428

00:17:38,957 --> 00:17:41,627

AND THEN OBVIOUSLY FOR ME I WAS

429

00:17:41,627 --> 00:17:42,694

A MATH MAJOR.

430

00:17:42,694 --> 00:17:43,996

YOU KNOW, EVERYTHING HAS TO DO

431

00:17:43,996 --> 00:17:44,530

WITH MATH.

432

00:17:44,530 --> 00:17:46,432

YOU ARE ALWAYS USING MATH TO

433

00:17:46,432 --> 00:17:47,199

FIGURE STUFF OUT.

434

00:17:47,199 --> 00:17:48,700

WHETHER IT'S A PROBLEMS OR A

435

00:17:48,700 --> 00:17:49,668

SCHEDULE OR WHATEVER IT IS, SO

436

00:17:49,668 --> 00:17:52,070

THIS IS JUST A WORKING EXAMPLE

437

00:17:52,070 --> 00:17:53,772

OF WHAT SCIENCE TECHNOLOGY,

438

00:17:53,772 --> 00:17:54,573

ENGINEERING AND MATH IS.

439

00:17:54,573 --> 00:17:56,608

SO HOPEFULLY YOU GUYS SEE THIS,

440

00:17:56,608 --> 00:17:59,411

AND GO, WOW, THAT LOOKS LIKE

441

00:17:59,411 --> 00:18:02,714

REALLY INTERESTING STUFF.

442

00:18:02,714 --> 00:18:04,583

I WANT TO LEARN MORE ABOUT THAT.

443

00:18:04,583 --> 00:18:07,052

>> HI, I'M KALELY, WHAT WAS IT

444

00:18:07,052 --> 00:18:10,222

LIKE TO SEE THE SOLAR ECLIPSE

445

00:18:10,222 --> 00:18:11,623

FROM THE SPACE STATION?

446

00:18:11,623 --> 00:18:16,895

>> HEY, CAYLEE, THAT WAS PRETTY

447

00:18:16,895 --> 00:18:17,262

AMAZING.

448

00:18:17,262 --> 00:18:19,865

THERE WAS BIG DARK BLACK SHADOW

449

00:18:19,865 --> 00:18:22,468

ON TOP OF THE CLOUDS AND THE

450

00:18:22,468 --> 00:18:23,402

ERLT THAT MOVED ALONG.

451  
00:18:23,402 --> 00:18:25,070  
I THINK WE WERE ALL IMPRESSED

452  
00:18:25,070 --> 00:18:26,371  
ABOUT HOW BIG IT WAS.

453  
00:18:26,371 --> 00:18:28,240  
BECAUSE WE'RE USING TO SEEING

454  
00:18:28,240 --> 00:18:30,476  
THE SCALE UP HERE FROM 250

455  
00:18:30,476 --> 00:18:31,877  
MILES, AND WHEN YOU SEE

456  
00:18:31,877 --> 00:18:33,445  
SOMETHING THAT BIG, BIGGER THAN

457  
00:18:33,445 --> 00:18:34,813  
LIKE THE STATE OF RHODE ISLAND,

458  
00:18:34,813 --> 00:18:37,416  
I THINK IT WAS, AND TO SEE IT

459  
00:18:37,416 --> 00:18:39,785  
MOVE ALONG, WAS JUST REALLY,

460  
00:18:39,785 --> 00:18:41,420  
REALLY NEAT AND IMPRESSIVE.

461  
00:18:41,420 --> 00:18:42,788  
AND THAT WAS JUST THE SHADOW ON

462  
00:18:42,788 --> 00:18:43,489  
THE GROUND.

463  
00:18:43,489 --> 00:18:45,390

AND LOOKING UP AT THE SUN AND

464

00:18:45,390 --> 00:18:48,494

SEEING THE SLIVERS GROW AND

465

00:18:48,494 --> 00:18:51,096

EXPAND WITH THE SPECIAL SOLAR

466

00:18:51,096 --> 00:18:53,499

FILTERS WE HAD ON OUR CAMERAS

467

00:18:53,499 --> 00:18:55,167

WAS REALLY NEAT AS WELL.

468

00:18:55,167 --> 00:18:57,236

I HOPE YOU GOT TO SEE IT.

469

00:18:57,236 --> 00:18:58,971

BECAUSE I KNOW MY KIDS THOUGHT

470

00:18:58,971 --> 00:19:00,873

IT WAS PRETTY AMAZING.

471

00:19:00,873 --> 00:19:02,374

THE FIRST TIME IN ALMOST A

472

00:19:02,374 --> 00:19:03,375

HUNDRED YEARS.

473

00:19:03,375 --> 00:19:04,643

A REALLY SPECIAL EVENT.

474

00:19:04,643 --> 00:19:05,878

I HOPE YOU REMEMBER IT.

475

00:19:05,878 --> 00:19:07,746

>> HI, MY NAME IS [ INAUDIBLE ]

476  
00:19:07,746 --> 00:19:09,948  
WHAT DOES WEATHER LOOK LIKE FROM

477  
00:19:09,948 --> 00:19:13,719  
SPACE?

478  
00:19:13,719 --> 00:19:15,854  
>> THE WEATHER LOOKS REALLY

479  
00:19:15,854 --> 00:19:16,154  
NEAT.

480  
00:19:16,154 --> 00:19:18,757  
WE GET TO SEE THE CLOUDS AND THE

481  
00:19:18,757 --> 00:19:20,425  
LIGHT AND THE DARK.

482  
00:19:20,425 --> 00:19:22,394  
AND SO THE NEAT THING ABOUT

483  
00:19:22,394 --> 00:19:24,363  
CLOUDS IS THERE ARE NO TWO THE

484  
00:19:24,363 --> 00:19:24,763  
SAME.

485  
00:19:24,763 --> 00:19:26,365  
AND YOU CAN SEE WHERE YOU WOULD

486  
00:19:26,365 --> 00:19:27,833  
THINK THEY WOULD ALL BE THE

487  
00:19:27,833 --> 00:19:29,601  
SAME, BECAUSE IT IS THE SAME

488  
00:19:29,601 --> 00:19:30,736

KIND OF WEATHER PATTERN.

489

00:19:30,736 --> 00:19:32,671

BUT YOU WOULD HAVE A LINE OF

490

00:19:32,671 --> 00:19:35,908

CLOUDS AND THEN PUFFIES AND THEN

491

00:19:35,908 --> 00:19:37,809

STREAKS AND IT IS ALWAYS AMAZING

492

00:19:37,809 --> 00:19:38,544

TO SEE.

493

00:19:38,544 --> 00:19:40,512

AND IT'S NEAT HOW YOU CAN SEE

494

00:19:40,512 --> 00:19:43,181

THE SHADOWS OF THE CLOUDS.

495

00:19:43,181 --> 00:19:44,249

WE HAVE UNFORTUNATELY SEEN WAY

496

00:19:44,249 --> 00:19:45,784

TOO MANY HURRICANES FROM UP HERE

497

00:19:45,784 --> 00:19:47,853

IN THE PAST -- PAST COUPLE OF

498

00:19:47,853 --> 00:19:49,688

WEEKS, BUT TO SEE THE HURRICANE

499

00:19:49,688 --> 00:19:51,523

SWIRLS, AND THE WAY THE CLOUDS

500

00:19:51,523 --> 00:19:54,760

JET OUT FROM THE EDGES, AND THEN

501  
00:19:54,760 --> 00:19:57,696  
TO LOOK DOWN LITERALLY INTO THE

502  
00:19:57,696 --> 00:20:00,065  
EYE OF THE HURRICANE, AND WE

503  
00:20:00,065 --> 00:20:02,968  
HAVE SEEN STRAIGHT DOWN TO THE

504  
00:20:02,968 --> 00:20:07,306  
BLUE OF THE OCEAN INSIDE OF IRMA

505  
00:20:07,306 --> 00:20:08,707  
AND JOSE.

506  
00:20:08,707 --> 00:20:10,809  
THE SAD PART FOR US IS KNOWING

507  
00:20:10,809 --> 00:20:12,911  
WHAT IS GOING ON UNDERNEATH

508  
00:20:12,911 --> 00:20:14,513  
THOSE HURRICANES.

509  
00:20:14,513 --> 00:20:17,683  
>> HI MY NAME IS ALICE, AND DOES

510  
00:20:17,683 --> 00:20:22,988  
FOOD TASTE DIFFERENT IN SPACE?

511  
00:20:22,988 --> 00:20:24,590  
>> FOOD DOES TASTE DIFFERENT.

512  
00:20:24,590 --> 00:20:26,692  
I THINK FOR MOST OF US, THE

513  
00:20:26,692 --> 00:20:29,061

TASTES AREN'T QUITE AS STRONG,

514

00:20:29,061 --> 00:20:30,662

SO WE TRY TO, YOU KNOW, ADD

515

00:20:30,662 --> 00:20:31,964

SAUCES AND THINGS LIKE THAT TO

516

00:20:31,964 --> 00:20:32,631

OUR FOOD.

517

00:20:32,631 --> 00:20:34,633

WE HAVE DIFFERENT KINDS OF FOOD

518

00:20:34,633 --> 00:20:35,133

UP HERE.

519

00:20:35,133 --> 00:20:37,102

WE HAVE FOOD THAT KIND OF COMES

520

00:20:37,102 --> 00:20:39,338

IN POUCHES, AND THEY LAST FOR A

521

00:20:39,338 --> 00:20:39,805

LONG TIME.

522

00:20:39,805 --> 00:20:43,976

WE HAVE FOOD THAT COMES

523

00:20:43,976 --> 00:20:45,210

FREEZE-DRIED, AND SO WHAT WE DO

524

00:20:45,210 --> 00:20:48,080

IS WE ADD WATER IN THROUGH HERE.

525

00:20:48,080 --> 00:20:50,482

WE LET IT SIT FOR A FEW MINUTES,

526

00:20:50,482 --> 00:20:51,717

AND IT'S REALLY LIGHT.

527

00:20:51,717 --> 00:20:53,785

THIS IS ZERO GRAVITY, SO IF YOU

528

00:20:53,785 --> 00:20:55,787

ARE HOLDING YOUR HAND, IT WOULD

529

00:20:55,787 --> 00:20:57,756

FEEL LIKE MAYBE A COUPLE OF

530

00:20:57,756 --> 00:20:58,757

FEATHER'S WAIT.

531

00:20:58,757 --> 00:21:01,293

SO THAT'S ON EASY WAY TO GET

532

00:21:01,293 --> 00:21:02,661

STUFF TO THE SPACE STATION FOR

533

00:21:02,661 --> 00:21:02,928

US.

534

00:21:02,928 --> 00:21:04,262

WE HAVE FOOD IN CANS.

535

00:21:04,262 --> 00:21:09,267

LIKE HERE IS A LITTLE BIT OF

536

00:21:09,267 --> 00:21:09,668

DESSERT.

537

00:21:09,668 --> 00:21:11,470

AND THEN WE HAVE OTHER THINGS

538

00:21:11,470 --> 00:21:13,305

FOR DESSERT, AND I THINK YOU

539

00:21:13,305 --> 00:21:16,642

KNOW WHAT THOSE ARE.

540

00:21:16,642 --> 00:21:22,814

SO YOU HAVE GOT TO BE CAREFUL,

541

00:21:22,814 --> 00:21:25,217

THOUGH, BECAUSE . . . THEY FLOAT

542

00:21:25,217 --> 00:21:31,790

AROUND.

543

00:21:31,790 --> 00:21:33,392

AND THEN THEY WILL STOP MOVING,

544

00:21:33,392 --> 00:21:35,894

AND THEN WHEN YOU TOUCH IT, IT

545

00:21:35,894 --> 00:21:37,029

WILL REACT AND START MOVING

546

00:21:37,029 --> 00:21:40,699

AROUND AGAIN.

547

00:21:40,699 --> 00:21:43,602

AND WE'LL SEE IF WE CAN GET THIS

548

00:21:43,602 --> 00:21:43,969

RIGHT.

549

00:21:43,969 --> 00:21:47,339

HERE IS A CANDY-COATED PEANUT,

550

00:21:47,339 --> 00:21:52,344

COMING TO YOU.

551  
00:21:52,344 --> 00:21:55,614  
TASTES PRETTY GOOD.

552  
00:21:55,614 --> 00:21:57,716  
>> HI, MY NAME IS ERIC.

553  
00:21:57,716 --> 00:22:00,318  
WHEN YOU EAT, DOES THE FOOD

554  
00:22:00,318 --> 00:22:04,923  
FLOAT INSIDE YOUR MOUTH, OR DOES

555  
00:22:04,923 --> 00:22:07,259  
IT STAY ON YOUR TONGUE LIKE IT

556  
00:22:07,259 --> 00:22:23,508  
DOES ON EARTH?

557  
00:22:23,508 --> 00:22:25,877  
>> THE FOOD -- STICKS TO YOUR

558  
00:22:25,877 --> 00:22:27,145  
MOUTH, BECAUSE YOUR MOUTH HAS

559  
00:22:27,145 --> 00:22:29,014  
WATER, LIKE WE TALKED ABOUT WITH

560  
00:22:29,014 --> 00:22:29,815  
SURFACE TENSION.

561  
00:22:29,815 --> 00:22:32,784  
SO KIND OF LIKE THE WAY THAT THE

562  
00:22:32,784 --> 00:22:34,219  
CANDIES ARE STICKING TO THE

563  
00:22:34,219 --> 00:22:34,820

OUTSIDE HERE.

564

00:22:34,820 --> 00:22:37,823

IT STICKS IN YOUR MOUTH ONCE YOU

565

00:22:37,823 --> 00:22:38,256

GET IT THERE.

566

00:22:38,256 --> 00:22:40,392

BUT FROM THE TIME YOU GET IT

567

00:22:40,392 --> 00:22:43,061

FROM THE PACKAGE TO YOUR MOUTH

568

00:22:43,061 --> 00:22:45,931

THAT IS THE HARD PART.

569

00:22:45,931 --> 00:22:47,833

YOU HAVE TO USE YOUR SPOON TO

570

00:22:47,833 --> 00:22:50,335

MAKE SURE IT GETS THERE.

571

00:22:50,335 --> 00:22:52,671

>> HI, MY NAME IS ANNA.

572

00:22:52,671 --> 00:22:55,340

ARE THERE THINGS THAT YOU CAN'T

573

00:22:55,340 --> 00:23:01,780

BRING ON THE SPACE STATION?

574

00:23:01,780 --> 00:23:03,982

>> WELL, JUST LIKE AN AIRPLANE,

575

00:23:03,982 --> 00:23:05,951

OR A SHIP, OR THINGS LIKE THAT,

576  
00:23:05,951 --> 00:23:07,686  
ONE OF THE THINGS THAT YOU WORRY

577  
00:23:07,686 --> 00:23:08,587  
ABOUT ALWAYS IS FIRE.

578  
00:23:08,587 --> 00:23:10,555  
SO CERTAINLY THINGS THAT ARE

579  
00:23:10,555 --> 00:23:11,890  
FLAMMABLE, WE DON'T WANT UP

580  
00:23:11,890 --> 00:23:12,190  
HERE.

581  
00:23:12,190 --> 00:23:13,592  
WE DON'T WANT THINGS THAT ARE

582  
00:23:13,592 --> 00:23:14,693  
SHARP, BECAUSE YOU CAN -- YOU

583  
00:23:14,693 --> 00:23:16,762  
KNOW, WE'RE FLOATING AROUND, AND

584  
00:23:16,762 --> 00:23:18,697  
MOVING AROUND, WE DON'T -- YOU

585  
00:23:18,697 --> 00:23:20,165  
KNOW, SOMETIMES WE BUMP INTO

586  
00:23:20,165 --> 00:23:25,137  
STUFF, AND SO WE DON'T WANT TO

587  
00:23:25,137 --> 00:23:26,238  
HAVE ANYTHING THAT CAN HURT US

588  
00:23:26,238 --> 00:23:27,305

IN THAT REGARD.

589

00:23:27,305 --> 00:23:29,541

WE DON'T WANT THINGS THAT TAKE

590

00:23:29,541 --> 00:23:30,408

TOO MUCH ENERGY IS.

591

00:23:30,408 --> 00:23:32,277

BECAUSE WE'RE COLLECTING ENERGY

592

00:23:32,277 --> 00:23:34,780

FROM THE SOLAR RAYS, SO WE WANT

593

00:23:34,780 --> 00:23:37,949

TO HAVE STUFF THAT IS EFFICIENT.

594

00:23:37,949 --> 00:23:39,417

AND NOTHING THAT IS DANGEROUS IF

595

00:23:39,417 --> 00:23:42,988

IT GETS OUT OF THE PACKAGE, THAT

596

00:23:42,988 --> 00:23:45,323

IT COULD CAUSE HARM TO US,

597

00:23:45,323 --> 00:23:47,192

BECAUSE WE CAN'T JUST OPEN THE

598

00:23:47,192 --> 00:23:48,493

WINDOW AND GET FRESH AIR.

599

00:23:48,493 --> 00:23:50,896

>> HI, MY NAME IS ASHLEY.

600

00:23:50,896 --> 00:23:53,231

HOW DOES IT FEEL WHEN GOING AND

601  
00:23:53,231 --> 00:23:57,102  
LAUNCHING INTO SPACE?

602  
00:23:59,805 --> 00:24:01,473  
>> THAT'S A REALLY NEAT THING,

603  
00:24:01,473 --> 00:24:04,709  
BECAUSE YOU HAVE GOT ROCKETS

604  
00:24:04,709 --> 00:24:06,611  
THAT WEIGH -- MAYBE A MILLION

605  
00:24:06,611 --> 00:24:08,880  
POUNDS, BUT THEY HAVE A MILLION

606  
00:24:08,880 --> 00:24:10,115  
AND A HALF POUNDS OF THRUST OR

607  
00:24:10,115 --> 00:24:12,317  
THE POWER FROM THE ENGINES TO

608  
00:24:12,317 --> 00:24:14,119  
ALLOW YOU TO ESCAPE EARTH'S

609  
00:24:14,119 --> 00:24:14,486  
GRAVITY.

610  
00:24:14,486 --> 00:24:17,088  
SO YOU ARE SITTING IN YOUR SEAT,

611  
00:24:17,088 --> 00:24:18,657  
YOU ARE IN YOUR SPACE SUIT, AND

612  
00:24:18,657 --> 00:24:20,826  
ALL OF A SUDDEN YOU ARE PUSHED

613  
00:24:20,826 --> 00:24:23,695

BACK IN THE SEAT AS THE VEHICLE

614

00:24:23,695 --> 00:24:25,297

ACCELERATES AWAY FROM EARTH.

615

00:24:25,297 --> 00:24:26,898

KIND OF LIKE IF YOU HAVE BEEN IN

616

00:24:26,898 --> 00:24:29,034

A CAR OR ROLLER COASTER WHEN YOU

617

00:24:29,034 --> 00:24:31,102

START OUT AND IT PULLS YOU ALONG

618

00:24:31,102 --> 00:24:32,604

AND YOU PUSH BACK INTO THE SEAT,

619

00:24:32,604 --> 00:24:35,640

BUT THAT ROLLER COASTER OR CAR,

620

00:24:35,640 --> 00:24:37,809

OR AIRPLANE ON TAKEOFF, THAT

621

00:24:37,809 --> 00:24:39,044

ACCELERATION THAT PUSHES YOU

622

00:24:39,044 --> 00:24:41,246

INTO THE SEAT STOPS AFTER A

623

00:24:41,246 --> 00:24:42,514

WHILE, BECAUSE THEY DON'T HAVE

624

00:24:42,514 --> 00:24:44,416

ENOUGH POWER TO KEEP

625

00:24:44,416 --> 00:24:44,850

ACCELERATING.

626  
00:24:44,850 --> 00:24:47,786  
IT TAKES 8.5 MINUTES TO GET TO

627  
00:24:47,786 --> 00:24:48,119  
ORBIT.

628  
00:24:48,119 --> 00:24:50,055  
THAT WHOLE TIME YOU ARE

629  
00:24:50,055 --> 00:24:51,723  
ACCELERATING UNDER THIS ROCKET

630  
00:24:51,723 --> 00:24:54,426  
POWER, SO YOU ARE USED TO MAYBE

631  
00:24:54,426 --> 00:24:55,493  
10, 20, 30 SECONDS OF

632  
00:24:55,493 --> 00:24:56,661  
ACCELERATION ON THESE OTHER

633  
00:24:56,661 --> 00:24:59,531  
THINGS I TALKED ABOUT ON EARTH,

634  
00:24:59,531 --> 00:25:05,337  
BUT WHEN YOU GET INTO MINUTES OF

635  
00:25:05,337 --> 00:25:08,206  
ACCELERATION, YOUR BODY IS GOING

636  
00:25:08,206 --> 00:25:10,942  
WAIT A MINUTE, HOW ARE WE STILL

637  
00:25:10,942 --> 00:25:11,376  
ACCELERATING.

638  
00:25:11,376 --> 00:25:12,477

SO IT'S A REALLY NEAT THING TO

639

00:25:12,477 --> 00:25:13,845

DEVELOP THIS TECHNOLOGY TO GET

640

00:25:13,845 --> 00:25:15,680

OFF OF EARTH, AND NOW WE'RE

641

00:25:15,680 --> 00:25:18,016

BUILDING BIGGER AND BETTER

642

00:25:18,016 --> 00:25:19,217

ROCKETS TO GO FURTHER PLACES IN

643

00:25:19,217 --> 00:25:20,418

THE SOLAR SYSTEM.

644

00:25:20,418 --> 00:25:22,220

AND THAT'S A REALLY EXCITING

645

00:25:22,220 --> 00:25:24,155

TIME, ESPECIALLY FOR YOU GUYS

646

00:25:24,155 --> 00:25:25,891

WHO ARE MOVING UP IN SCHOOL, YOU

647

00:25:25,891 --> 00:25:27,359

COULD BE DESIGNING THOSE TYPES

648

00:25:27,359 --> 00:25:30,161

OF ROCKETS, AND FLYING THOSE

649

00:25:30,161 --> 00:25:30,495

ROCKETS.

650

00:25:30,495 --> 00:25:32,397

>> HI, MY NAME IS [ INAUDIBLE ].

651  
00:25:32,397 --> 00:25:39,938  
AND DO YOUR EARS POP IN SPACE?

652  
00:25:39,938 --> 00:25:41,506  
>> NORMALLY THEY DON'T.

653  
00:25:41,506 --> 00:25:44,342  
BECAUSE OUR ROCKET SHIPS AND OUR

654  
00:25:44,342 --> 00:25:46,645  
SPACE STATIONS IS THE SAME

655  
00:25:46,645 --> 00:25:50,515  
STATION THAT YOU ARE AT.

656  
00:25:50,515 --> 00:25:52,183  
14.7, YOU KNOW, MILES PER SQUARE

657  
00:25:52,183 --> 00:25:52,484  
INCH.

658  
00:25:52,484 --> 00:25:53,585  
THAT'S THE PRESSURE.

659  
00:25:53,585 --> 00:25:55,620  
SO IF OUR EARS POP, THEN

660  
00:25:55,620 --> 00:25:57,389  
THAT'S -- ONE OF TWO THINGS ARE

661  
00:25:57,389 --> 00:25:58,490  
HAPPENING.

662  
00:25:58,490 --> 00:26:00,558  
WE'RE GETTING READY TO GO ON AN

663  
00:26:00,558 --> 00:26:02,861

EVA, BECAUSE THE PRESSURE IN OUR

664

00:26:02,861 --> 00:26:09,100

SUITS IS LOWER, OR WE HAVE A

665

00:26:09,100 --> 00:26:10,735

HOLE IN OUR SPACE SUIT, AND

666

00:26:10,735 --> 00:26:12,570

WE'RE LOSING PRESSURE.

667

00:26:12,570 --> 00:26:14,806

THAT WE DEFINITELY DON'T WANT TO

668

00:26:14,806 --> 00:26:16,074

HAVE.

669

00:26:16,074 --> 00:26:18,944

BUT WE WILL HAVE THAT HAPPEN A

670

00:26:18,944 --> 00:26:21,346

LITTLE BIT WHEN WE GO OUTSIDE.

671

00:26:21,346 --> 00:26:23,081

NOTICE THE SPACE SUITS WE GO

672

00:26:23,081 --> 00:26:24,983

DOWN TO 4.2 PSI.

673

00:26:24,983 --> 00:26:26,918

THAT'S THE SAME THING AS BEING

674

00:26:26,918 --> 00:26:28,787

ABOUT 30,000 FEET.

675

00:26:28,787 --> 00:26:30,889

SO TALLER THAN MOUNT EVEREST IS

676  
00:26:30,889 --> 00:26:32,624  
THE PRESSURE WE'RE IN INSIDE OF

677  
00:26:32,624 --> 00:26:34,793  
OUR SUITS, SO WE CAN GO OUT

678  
00:26:34,793 --> 00:26:36,995  
THERE AND STILL MOVE IN OUR

679  
00:26:36,995 --> 00:26:37,462  
SUITS.

680  
00:26:37,462 --> 00:26:39,531  
HOW WE FUNCTION AT THAT

681  
00:26:39,531 --> 00:26:43,335  
ELEVATION, WE USE OXYGEN, 100%.

682  
00:26:43,335 --> 00:26:45,003  
>> COMRADE, WE WANT TO THANK YOU

683  
00:26:45,003 --> 00:26:46,404  
SO MUCH FOR TALKING WITH US

684  
00:26:46,404 --> 00:26:47,172  
TODAY.

685  
00:26:47,172 --> 00:26:49,040  
THIS HAS BEEN ABSOLUTELY

686  
00:26:49,040 --> 00:26:49,441  
INCREDIBLE.

687  
00:26:49,441 --> 00:26:51,242  
WE HOPE YOU ENJOY THE REST OF

688  
00:26:51,242 --> 00:26:53,578

YOUR TIME IN SPACE, AND -- OH,

689

00:26:53,578 --> 00:26:54,980

MY GOODNESS!

690

00:26:54,980 --> 00:26:55,580

WOW!

691

00:26:55,580 --> 00:26:55,981

[ LAUGHTER ]

692

00:26:55,981 --> 00:26:59,918

>> THAT IS INCREDIBLE!

693

00:26:59,918 --> 00:27:00,318

[ LAUGHTER ]

694

00:27:00,318 --> 00:27:01,386

>> THANK YOU COMRADE!

695

00:27:01,386 --> 00:27:01,987

>> THANK YOU.

696

00:27:01,987 --> 00:27:02,420

[ LAUGHTER ]

697

00:27:02,420 --> 00:27:02,821

[ APPLAUSE ]

698

00:27:02,821 --> 00:27:07,926

>> THANK YOU VERY MUCH.

699

00:27:07,926 --> 00:27:08,860

>> ALL RIGHT.

700

00:27:08,860 --> 00:27:09,160

GUYS.

701  
00:27:09,160 --> 00:27:10,161  
THANKS FOR COMING.

702  
00:27:10,161 --> 00:27:11,696  
GREAT QUESTIONS AND ENJOY THE

703  
00:27:11,696 --> 00:27:13,798  
REST OF YOUR TIME AT THE

704  
00:27:13,798 --> 00:27:17,769  
NATIONAL AIR AND SPACE MUSEUM.

705  
00:27:17,769 --> 00:27:20,505  
>> STATION THIS IS HOUSTON.

706  
00:27:20,505 --> 00:27:22,941  
THAT CONCLUDES THE EVENT.

707  
00:27:22,941 --> 00:27:25,110  
>> WE WOULD LIKE TO THING THE

708  
00:27:25,110 --> 00:27:25,477  
COMRADE.

709  
00:27:25,477 --> 00:27:27,379  
THAT WAS ABSOLUTELY AMAZING, AND

710  
00:27:27,379 --> 00:27:28,847  
WE WOULD LIKE TO THING ALL OF

711  
00:27:28,847 --> 00:27:30,915  
THE FOLKS FROM NASA FOR MAKING

712  
00:27:30,915 --> 00:27:31,883  
THIS POSSIBLE.

713  
00:27:31,883 --> 00:27:33,551

>> WE ALSO WANT TO THANK OUR

714

00:27:33,551 --> 00:27:34,953

SPONSOR TODAY, BOEING.

715

00:27:34,953 --> 00:27:36,955

>> AND TONIGHT IF YOU LIVE IN

716

00:27:36,955 --> 00:27:39,791

THE WASHINGTON, D.C. AREA, YOU

717

00:27:39,791 --> 00:27:42,527

CAN GO INTO YOUR BACKYARD AND

718

00:27:42,527 --> 00:27:43,528

SEE THE INTERNATIONAL SPACE

719

00:27:43,528 --> 00:27:45,330

STATION PASS OVER.

720

00:27:45,330 --> 00:27:46,965

IT WILL BE MAKING A REALLY

721

00:27:46,965 --> 00:27:47,999

BRIGHT, REALLY VISIBLE PASS

722

00:27:47,999 --> 00:27:50,068

RIGHT OVER THE WASHINGTON, D.C.

723

00:27:50,068 --> 00:27:50,368

AREA.