



1  
00:00:11,669 --> 00:00:02,629  
station this is houston

2  
00:00:16,950 --> 00:00:14,629  
i am ready for the event

3  
00:00:18,870 --> 00:00:16,960  
wycliff progressive community school

4  
00:00:20,870 --> 00:00:18,880  
this is houston please call the

5  
00:00:24,390 --> 00:00:20,880  
international space station for a voice

6  
00:00:29,029 --> 00:00:26,630  
station this is chris colors principal

7  
00:00:33,990 --> 00:00:29,039  
at wycliffe progressive community school

8  
00:00:37,190 --> 00:00:35,830  
hello everybody at wycliff we've got you

9  
00:00:42,549 --> 00:00:37,200  
loud and clear from the international

10  
00:00:42,559 --> 00:00:50,150  
loud and

11  
00:00:56,830 --> 00:00:52,150  
that means hello and welcome to

12  
00:01:01,430 --> 00:00:59,830  
hello wow aki he's uh right right behind

13  
00:01:04,869 --> 00:01:01,440

the camera and he knows he could hear

14

00:01:04,879 --> 00:01:16,310

hello my name is

15

00:01:19,510 --> 00:01:17,990

progressive school welcomes the

16

00:01:24,630 --> 00:01:19,520

international crew aboard the

17

00:01:28,870 --> 00:01:27,109

that was awesome russian oh my gosh i

18

00:01:30,630 --> 00:01:28,880

wish i knew that much russian you you

19

00:01:33,109 --> 00:01:30,640

sounded wonderful i'll have to make sure

20

00:01:35,670 --> 00:01:33,119

our cosmonaut friends yuri gennady and

21

00:01:39,109 --> 00:01:35,680

sergey uh hear you talking thank you so

22

00:01:43,749 --> 00:01:41,510

hi sunny my name is andrea and my

23

00:01:47,910 --> 00:01:43,759

question is what's your biggest fear of

24

00:01:52,469 --> 00:01:50,710

hi andrea i think i know who you are

25

00:01:54,310 --> 00:01:52,479

it's good to hear your voice

26  
00:01:55,990 --> 00:01:54,320  
so what's my biggest fear about going

27  
00:01:57,749 --> 00:01:56,000  
into space wow

28  
00:01:59,590 --> 00:01:57,759  
that's a little bit of a hard question

29  
00:02:01,749 --> 00:01:59,600  
because i don't i don't think i'm that

30  
00:02:04,069 --> 00:02:01,759  
afraid about going into space it feels

31  
00:02:05,910 --> 00:02:04,079  
like a second home up here i've got

32  
00:02:08,229 --> 00:02:05,920  
great friends up here

33  
00:02:09,270 --> 00:02:08,239  
i miss my family and of course i miss my

34  
00:02:12,229 --> 00:02:09,280  
dog

35  
00:02:13,910 --> 00:02:12,239  
back at home but my i think my biggest

36  
00:02:15,430 --> 00:02:13,920  
fear is um

37  
00:02:18,309 --> 00:02:15,440  
probably when i left you never know if

38  
00:02:19,990 --> 00:02:18,319

you might not see all those people again

39

00:02:21,430 --> 00:02:20,000

we probably will more than likely we're

40

00:02:23,350 --> 00:02:21,440

going to have a very successful mission

41

00:02:24,790 --> 00:02:23,360

and we come back to home in november and

42

00:02:27,750 --> 00:02:24,800

that's what i'm really looking forward

43

00:02:27,760 --> 00:02:30,550

thank you

44

00:02:35,110 --> 00:02:33,430

hi sonny i'm berto and my question is

45

00:02:39,270 --> 00:02:35,120

what do constellations look like from

46

00:02:43,430 --> 00:02:41,589

so constellations they look uh sort of

47

00:02:44,710 --> 00:02:43,440

like what they look like from earth

48

00:02:46,790 --> 00:02:44,720

there's just a little bit of a

49

00:02:48,309 --> 00:02:46,800

difference and the reason i'm telling

50

00:02:50,550 --> 00:02:48,319

you this is because we're not much

51  
00:02:53,030 --> 00:02:50,560  
farther off of the surface of the planet

52  
00:02:54,790 --> 00:02:53,040  
than than where you are compared to

53  
00:02:57,670 --> 00:02:54,800  
where the stars are the stars are

54  
00:03:01,589 --> 00:02:57,680  
millions of miles away and we're only

55  
00:03:03,190 --> 00:03:01,599  
about 250 miles away from you and so

56  
00:03:05,190 --> 00:03:03,200  
this the constellations look pretty

57  
00:03:08,070 --> 00:03:05,200  
similar however there's no atmosphere

58  
00:03:10,390 --> 00:03:08,080  
there's no water vapor there's no water

59  
00:03:12,949 --> 00:03:10,400  
in the air between us and them

60  
00:03:13,750 --> 00:03:12,959  
and so the stars look crystal clear

61  
00:03:15,350 --> 00:03:13,760  
and

62  
00:03:17,509 --> 00:03:15,360  
actually it's a little more difficult to

63  
00:03:19,990 --> 00:03:17,519

find constellations i think from space

64

00:03:21,509 --> 00:03:20,000

because there are so many stars out

65

00:03:23,670 --> 00:03:21,519

there and they are so clear so we

66

00:03:29,270 --> 00:03:23,680

actually see thousands and thousands of

67

00:03:37,589 --> 00:03:31,830

hi sunny my name is nico what is a

68

00:03:41,430 --> 00:03:38,869

so it's interesting you asked that

69

00:03:44,309 --> 00:03:41,440

question too there's barely a typical

70

00:03:46,070 --> 00:03:44,319

day but what start what is usual that

71

00:03:47,830 --> 00:03:46,080

happens is we get up somewhere around

72

00:03:50,070 --> 00:03:47,840

six o'clock and we go to bed somewhere

73

00:03:51,750 --> 00:03:50,080

around 10 o'clock i try to get eight

74

00:03:53,670 --> 00:03:51,760

hours of sleep up here which is

75

00:03:55,750 --> 00:03:53,680

sometimes a little difficult because we

76

00:03:57,670 --> 00:03:55,760

are orbiting the planet sixteen times a

77

00:04:00,550 --> 00:03:57,680

day so there's lots of sunrises and

78

00:04:01,910 --> 00:04:00,560

sunsets in one 24-hour period

79

00:04:03,670 --> 00:04:01,920

but sometimes we're getting ready for a

80

00:04:06,309 --> 00:04:03,680

space lock like what we're doing right

81

00:04:08,550 --> 00:04:06,319

now sometimes we're working on a robotic

82

00:04:10,789 --> 00:04:08,560

arm that's outside of the space station

83

00:04:12,630 --> 00:04:10,799

and moving parts and pieces around or

84

00:04:14,470 --> 00:04:12,640

actually catching a new spacecraft that

85

00:04:16,469 --> 00:04:14,480

comes up once we did the japanese

86

00:04:18,310 --> 00:04:16,479

vehicle the htv which is parked right up

87

00:04:20,229 --> 00:04:18,320

there sometimes we're working with a

88

00:04:22,310 --> 00:04:20,239

robot called robonaut which is right in

89

00:04:24,150 --> 00:04:22,320

front of me you might see

90

00:04:25,909 --> 00:04:24,160

doing some experiments on that sometimes

91

00:04:28,469 --> 00:04:25,919

we're doing experiments on ourself

92

00:04:31,030 --> 00:04:28,479

taking our own blood samples or working

93

00:04:32,950 --> 00:04:31,040

out on an exercise bike or a weight

94

00:04:35,030 --> 00:04:32,960

lifting machine that we have

95

00:04:37,670 --> 00:04:35,040

or doing any types of other experiments

96

00:04:39,990 --> 00:04:37,680

over here is a microgravity

97

00:04:43,430 --> 00:04:40,000

glovebox science glovebox which we do

98

00:04:45,990 --> 00:04:43,440

burning experiments in also also

99

00:04:49,430 --> 00:04:46,000

all sorts of experiments on materials

100

00:04:53,430 --> 00:04:49,440

so every day is different up in space

101  
00:04:57,830 --> 00:04:55,990  
hi sunny my name is sarah and i have a

102  
00:05:03,029 --> 00:04:57,840  
question for you did you dream of being

103  
00:05:06,469 --> 00:05:04,790  
you know i never knew any astronauts

104  
00:05:08,710 --> 00:05:06,479  
when i was a kid

105  
00:05:10,230 --> 00:05:08,720  
i of course knew when the guys were

106  
00:05:11,830 --> 00:05:10,240  
walking on the moon and i thought that

107  
00:05:13,350 --> 00:05:11,840  
would be really awesome and i really

108  
00:05:14,870 --> 00:05:13,360  
want to do that

109  
00:05:16,550 --> 00:05:14,880  
but you know i never grew up knowing

110  
00:05:18,310 --> 00:05:16,560  
anybody who had ever done it so i didn't

111  
00:05:20,469 --> 00:05:18,320  
really know what you had to do to be an

112  
00:05:22,469 --> 00:05:20,479  
astronaut so actually i wanted to be a

113  
00:05:25,029 --> 00:05:22,479

veterinarian when i was a kid and

114

00:05:27,110 --> 00:05:25,039

actually through through high school

115

00:05:28,550 --> 00:05:27,120

and so i was looking to do that but then

116

00:05:30,310 --> 00:05:28,560

i got interested in going into the

117

00:05:32,629 --> 00:05:30,320

military and i started flying

118

00:05:34,790 --> 00:05:32,639

helicopters and that was the first time

119

00:05:36,629 --> 00:05:34,800

i got to know people who were astronauts

120

00:05:38,550 --> 00:05:36,639

so when i was a little kid

121

00:05:42,230 --> 00:05:38,560

no i didn't think i could do it and now

122

00:05:43,749 --> 00:05:42,240

as a as an older kid um i wish you guys

123

00:05:45,749 --> 00:05:43,759

would do it because it's a whole lot of

124

00:05:47,909 --> 00:05:45,759

fun and i had wish i had known somebody

125

00:05:51,189 --> 00:05:47,919

when i was your age who was an astronaut

126

00:05:54,310 --> 00:05:51,199

to tell me how much fun it is

127

00:05:54,320 --> 00:05:58,469

hi sonny my name is annie

128

00:06:08,950 --> 00:06:04,390

can animals survive in space

129

00:06:10,629 --> 00:06:08,960

a that's a good question um there have

130

00:06:13,670 --> 00:06:10,639

been animals in space before you might

131

00:06:15,430 --> 00:06:13,680

have heard of uh leica belka and strauca

132

00:06:19,110 --> 00:06:15,440

those are russian dogs that went up to

133

00:06:21,110 --> 00:06:19,120

space before humans did we also launched

134

00:06:23,110 --> 00:06:21,120

chimpanzees into space in the early

135

00:06:24,950 --> 00:06:23,120

parts of the program here on the space

136

00:06:28,150 --> 00:06:24,960

station we've had mice and we've had

137

00:06:29,909 --> 00:06:28,160

spiders as a matter of fact but it is it

138

00:06:31,590 --> 00:06:29,919

is a little bit difficult

139

00:06:33,350 --> 00:06:31,600

to live in space of course you float

140

00:06:35,909 --> 00:06:33,360

around quite a bit you have to get used

141

00:06:38,070 --> 00:06:35,919

to floating and so our hands come in

142

00:06:40,390 --> 00:06:38,080

really handy because we can grab onto a

143

00:06:43,189 --> 00:06:40,400

handrail and stop ourselves

144

00:06:45,590 --> 00:06:43,199

animals would have to adapt uh to be

145

00:06:47,670 --> 00:06:45,600

able to do that and you know what's also

146

00:06:49,670 --> 00:06:47,680

difficult in space is

147

00:06:51,189 --> 00:06:49,680

going number one and number two so we'd

148

00:06:53,189 --> 00:06:51,199

have to figure out how to make sure the

149

00:06:55,430 --> 00:06:53,199

animals did that in a good way

150

00:06:57,670 --> 00:06:55,440

so in the meantime

151

00:06:59,830 --> 00:06:57,680

robonaut's holding my friend it's the

152

00:07:02,390 --> 00:06:59,840

imitation of my my dog it's a little

153

00:07:03,670 --> 00:07:02,400

stuffed dog little stuff gorby that way

154

00:07:09,350 --> 00:07:03,680

i don't have to worry about the number

155

00:07:09,360 --> 00:07:13,749

thank you

156

00:07:18,550 --> 00:07:17,270

hi sunny my name is leo

157

00:07:24,230 --> 00:07:18,560

what can you

158

00:07:29,270 --> 00:07:26,309

hi sunny

159

00:07:33,990 --> 00:07:29,280

my name is leo what can you see from the

160

00:07:37,350 --> 00:07:35,749

well you know we have a couple really

161

00:07:39,110 --> 00:07:37,360

great windows

162

00:07:40,870 --> 00:07:39,120

some of them that look down toward the

163

00:07:43,270 --> 00:07:40,880

earth and a couple that look out toward

164

00:07:44,869 --> 00:07:43,280

the side and then we have a cupola which

165

00:07:47,189 --> 00:07:44,879

is right behind you and around the

166

00:07:49,270 --> 00:07:47,199

corner which actually has six windows

167

00:07:50,230 --> 00:07:49,280

around and then a one big window on the

168

00:07:53,189 --> 00:07:50,240

top

169

00:07:55,189 --> 00:07:53,199

and so we can really see all out toward

170

00:07:56,230 --> 00:07:55,199

our galaxy and then down toward our

171

00:07:58,950 --> 00:07:56,240

planet

172

00:08:00,790 --> 00:07:58,960

we know where we are usually by just one

173

00:08:02,869 --> 00:08:00,800

looking out the window or two we have a

174

00:08:04,469 --> 00:08:02,879

program called world map and it shows

175

00:08:06,790 --> 00:08:04,479

exactly where we are

176

00:08:08,869 --> 00:08:06,800

over the planet and so right now we're

177

00:08:10,629 --> 00:08:08,879

right off the coast the east coast on

178

00:08:13,029 --> 00:08:10,639

the atlantic ocean so if i went up to

179

00:08:13,909 --> 00:08:13,039

the cupola right now i would be able to

180

00:08:16,550 --> 00:08:13,919

see

181

00:08:18,790 --> 00:08:16,560

the atlantic ocean in about three hours

182

00:08:20,070 --> 00:08:18,800

we should be flying over the midwest of

183

00:08:22,469 --> 00:08:20,080

the united states and i'll be able to

184

00:08:24,629 --> 00:08:22,479

look down and see ohio i'll probably be

185

00:08:26,469 --> 00:08:24,639

able to see the great lakes some things

186

00:08:28,710 --> 00:08:26,479

that are really visible are bridges of

187

00:08:31,350 --> 00:08:28,720

course on a clear day i could see the

188

00:08:32,870 --> 00:08:31,360

statue of liberty and the pyramids but i

189

00:08:35,909 --> 00:08:32,880

have to really know where i'm looking

190

00:08:37,829 --> 00:08:35,919

because we're flying at 17 500 miles an

191

00:08:45,350 --> 00:08:37,839

hour and so we zip past those things

192

00:08:45,360 --> 00:08:49,990

hi sonny my name is sam

193

00:08:50,000 --> 00:08:57,829

my question is what is your mission

194

00:09:02,710 --> 00:09:00,870

so our mission we are the 32nd

195

00:09:04,310 --> 00:09:02,720

expedition to the international space

196

00:09:07,110 --> 00:09:04,320

station the international space station

197

00:09:09,509 --> 00:09:07,120

has been here in space about 12 years

198

00:09:11,750 --> 00:09:09,519

and our mission is really focused on

199

00:09:14,630 --> 00:09:11,760

doing science experiments

200

00:09:16,630 --> 00:09:14,640

we're also our mission also gets to do a

201  
00:09:18,870 --> 00:09:16,640  
space walk because we have one box

202  
00:09:20,710 --> 00:09:18,880  
that's outside a big electrical box

203  
00:09:22,630 --> 00:09:20,720  
probably about this big

204  
00:09:25,110 --> 00:09:22,640  
that's not working quite right right now

205  
00:09:26,389 --> 00:09:25,120  
so we're going to go outside and replace

206  
00:09:28,790 --> 00:09:26,399  
that box

207  
00:09:30,949 --> 00:09:28,800  
also during this spacewalk which is part

208  
00:09:32,550 --> 00:09:30,959  
of our mission right in the very front

209  
00:09:34,310 --> 00:09:32,560  
of the space station that's the very

210  
00:09:36,790 --> 00:09:34,320  
front right there

211  
00:09:38,550 --> 00:09:36,800  
it sometimes get hits by micrometeorites

212  
00:09:40,630 --> 00:09:38,560  
and so we're going to put a big cover on

213  
00:09:42,470 --> 00:09:40,640

the front of the space station so those

214

00:09:44,710 --> 00:09:42,480

are some of the big goals that we're

215

00:09:48,070 --> 00:09:44,720

going to do during our spacewalk but

216

00:09:49,190 --> 00:09:48,080

overall during our four months of being

217

00:09:50,710 --> 00:09:49,200

up here

218

00:09:53,910 --> 00:09:50,720

most of the time we'll be doing science

219

00:09:56,470 --> 00:09:53,920

experiments to hope to help us

220

00:10:03,190 --> 00:09:56,480

create better spacecraft and potentially

221

00:10:07,430 --> 00:10:05,190

hi sunny my name is connor and i have a

222

00:10:12,550 --> 00:10:07,440

question for you what do astronauts do

223

00:10:28,470 --> 00:10:14,790

well can you imagine what we do for fun

224

00:10:36,470 --> 00:10:30,310

i wish i could do that sometimes we have

225

00:10:36,480 --> 00:11:00,949

there's a lot of things we do for fun

226

00:11:04,870 --> 00:11:02,949

so eating and eating and drinking is a

227

00:11:06,630 --> 00:11:04,880

lot of fun in space and floating and

228

00:11:08,870 --> 00:11:06,640

flying of course is a lot of fun in

229

00:11:10,790 --> 00:11:08,880

space but i think i know exactly what

230

00:11:11,829 --> 00:11:10,800

you mean other things too that we get to

231

00:11:13,990 --> 00:11:11,839

do

232

00:11:15,590 --> 00:11:14,000

we can use a phone so we have a phone

233

00:11:18,230 --> 00:11:15,600

call through the computer so we can talk

234

00:11:20,630 --> 00:11:18,240

to our family and friends sometimes we

235

00:11:22,470 --> 00:11:20,640

have tv shows that we can watch up here

236

00:11:24,710 --> 00:11:22,480

if we let you know if we're tired at

237

00:11:26,630 --> 00:11:24,720

night and just want to watch a tv show

238

00:11:28,870 --> 00:11:26,640

and even sometimes we have

239

00:11:30,630 --> 00:11:28,880

football and baseball which we're able

240

00:11:32,790 --> 00:11:30,640

to get up when the antennas are quite

241

00:11:34,470 --> 00:11:32,800

right and we can watch that so we have a

242

00:11:35,750 --> 00:11:34,480

little a couple things we can do for

243

00:11:41,509 --> 00:11:35,760

entertainment

244

00:11:49,910 --> 00:11:43,990

hi sunny my name is max and have you

245

00:11:53,750 --> 00:11:52,069

that's a great question and you know

246

00:11:56,230 --> 00:11:53,760

luckily enough

247

00:11:58,550 --> 00:11:56,240

none of us up here have gotten sick but

248

00:12:00,470 --> 00:11:58,560

we're ready for that we have all sorts

249

00:12:02,310 --> 00:12:00,480

of medical supplies and we actually go

250

00:12:04,710 --> 00:12:02,320

through a lot of training on the ground

251

00:12:07,190 --> 00:12:04,720

to make sure that we know how to

252

00:12:08,470 --> 00:12:07,200

fix help another person if they are sick

253

00:12:10,470 --> 00:12:08,480

in space

254

00:12:12,389 --> 00:12:10,480

we don't always have a doctor up here

255

00:12:13,269 --> 00:12:12,399

none of us on board right now of the six

256

00:12:14,949 --> 00:12:13,279

of us

257

00:12:17,190 --> 00:12:14,959

are doctors so we have to know how to be

258

00:12:19,269 --> 00:12:17,200

able to take care of ourselves and so we

259

00:12:21,670 --> 00:12:19,279

have everything from simple stuff like

260

00:12:22,949 --> 00:12:21,680

if you had a headache all the way to

261

00:12:24,470 --> 00:12:22,959

something if something happened and

262

00:12:26,150 --> 00:12:24,480

somebody got shocked

263

00:12:28,310 --> 00:12:26,160

we have all the equipment to take care

264

00:12:30,230 --> 00:12:28,320

of each other but luckily uh nothing

265

00:12:32,710 --> 00:12:30,240

like that has happened and we actually

266

00:12:34,949 --> 00:12:32,720

do physical tests like you know do a

267

00:12:36,710 --> 00:12:34,959

physical on each other um probably once

268

00:12:42,550 --> 00:12:36,720

a month to make sure we're all in good

269

00:12:46,710 --> 00:12:45,110

hi sunny and my name is ryan what is

270

00:12:50,949 --> 00:12:46,720

your favorite thing you get to do in

271

00:12:55,590 --> 00:12:53,190

probably my favorite thing to do is look

272

00:12:57,430 --> 00:12:55,600

out the window uh the other day i was up

273

00:12:59,110 --> 00:12:57,440

there and looking out the window in the

274

00:13:00,310 --> 00:12:59,120

daytime is wonderful it's awesome

275

00:13:02,629 --> 00:13:00,320

because you know you could look at the

276

00:13:04,470 --> 00:13:02,639

planet uh you can look out into space

277

00:13:06,230 --> 00:13:04,480

and that's really pretty but when you

278

00:13:08,870 --> 00:13:06,240

when it's nighttime is like when you see

279

00:13:11,750 --> 00:13:08,880

all those stars that i was talking about

280

00:13:14,470 --> 00:13:11,760

and it just feels like you're in an in

281

00:13:15,430 --> 00:13:14,480

another another place and it's beautiful

282

00:13:17,829 --> 00:13:15,440

and

283

00:13:21,190 --> 00:13:17,839

you can see all the city lights over the

284

00:13:23,190 --> 00:13:21,200

planet you can see where it's dark or

285

00:13:24,710 --> 00:13:23,200

where it's light over the planet

286

00:13:27,030 --> 00:13:24,720

one of the things that i thought about

287

00:13:29,190 --> 00:13:27,040

if i was ever to go to mars is i'd like

288

00:13:31,269 --> 00:13:29,200

to probably take a lap around mars when

289

00:13:32,629 --> 00:13:31,279

it was night time because there's places

290

00:13:34,629 --> 00:13:32,639

on this planet that i wouldn't have

291

00:13:37,190 --> 00:13:34,639

thought anybody lived but then at when

292

00:13:39,430 --> 00:13:37,200

we fly over at night the lights light it

293

00:13:41,350 --> 00:13:39,440

all up so there's people in these places

294

00:13:43,829 --> 00:13:41,360

which it doesn't look very hospitable at

295

00:13:45,509 --> 00:13:43,839

times and so i think uh to answer your

296

00:13:47,509 --> 00:13:45,519

question looking out the pla looking out

297

00:13:49,509 --> 00:13:47,519

the window is probably my favorite thing

298

00:13:51,350 --> 00:13:49,519

to do a close

299

00:13:57,350 --> 00:13:51,360

second would be flying around and having

300

00:14:01,509 --> 00:13:59,670

hi sunny my name is sophia and my

301  
00:14:07,590 --> 00:14:01,519  
question is when you are leaving earth

302  
00:14:10,310 --> 00:14:08,870  
pretty close

303  
00:14:13,030 --> 00:14:10,320  
i don't know how if you guys know it

304  
00:14:15,269 --> 00:14:13,040  
only takes about eight minutes uh when

305  
00:14:16,790 --> 00:14:15,279  
we're in the rockets that we fly i flew

306  
00:14:19,350 --> 00:14:16,800  
a space shuttle and this time i flew a

307  
00:14:21,750 --> 00:14:19,360  
soy on a soyuz rocket only takes about

308  
00:14:23,750 --> 00:14:21,760  
eight minutes to get to space and that's

309  
00:14:25,509 --> 00:14:23,760  
when the engines cut off and you stop

310  
00:14:28,310 --> 00:14:25,519  
accelerating and you're outside of the

311  
00:14:30,949 --> 00:14:28,320  
atmosphere and as soon as that happens

312  
00:14:32,550 --> 00:14:30,959  
your arms start to float up and now i'm

313  
00:14:34,949 --> 00:14:32,560

used to it at least so much that

314

00:14:36,629 --> 00:14:34,959

unconsciously i hold them back down but

315

00:14:38,870 --> 00:14:36,639

if i don't think about it my arms start

316

00:14:40,310 --> 00:14:38,880

to come back up again so if you ever saw

317

00:14:41,990 --> 00:14:40,320

people who are sleeping up here you'd

318

00:14:44,310 --> 00:14:42,000

see their arms sort of floating because

319

00:14:46,710 --> 00:14:44,320

they they don't naturally fall down like

320

00:14:48,550 --> 00:14:46,720

they do on earth and so right after that

321

00:14:50,790 --> 00:14:48,560

eight minutes happens and the engines

322

00:14:52,230 --> 00:14:50,800

shut off you just start floating around

323

00:14:54,710 --> 00:14:52,240

and so you have to get used to holding

324

00:14:58,470 --> 00:14:54,720

yourself down

325

00:15:04,389 --> 00:14:59,750

hi

326

00:15:08,949 --> 00:15:04,399

sleep given the gravity air pressure in

327

00:15:13,509 --> 00:15:11,350

so sleeping is interesting

328

00:15:15,110 --> 00:15:13,519

we sleep in sleeping bags and i don't

329

00:15:17,509 --> 00:15:15,120

know if you could see right behind me

330

00:15:18,389 --> 00:15:17,519

here there's four sleep stations

331

00:15:20,230 --> 00:15:18,399

one on

332

00:15:21,670 --> 00:15:20,240

all the walls

333

00:15:23,269 --> 00:15:21,680

and you sleep in your sleeping bag and

334

00:15:24,870 --> 00:15:23,279

close the doors to your sleep station

335

00:15:27,269 --> 00:15:24,880

it's like a little room

336

00:15:31,509 --> 00:15:27,279

and what's nice about the little room is

337

00:15:32,949 --> 00:15:31,519

it's dark and it's pretty quiet and so

338

00:15:33,990 --> 00:15:32,959

you can get a pretty good night's sleep

339

00:15:35,990 --> 00:15:34,000

and you don't have to worry about all

340

00:15:37,590 --> 00:15:36,000

those sunrises and sunsets

341

00:15:39,189 --> 00:15:37,600

you know what you bring up a good point

342

00:15:40,710 --> 00:15:39,199

in the back of your head you know where

343

00:15:43,430 --> 00:15:40,720

you are we're in us we're in a

344

00:15:45,430 --> 00:15:43,440

spacecraft that's orbiting uh in space

345

00:15:47,910 --> 00:15:45,440

which is not very hospitable to human

346

00:15:49,430 --> 00:15:47,920

beings outside without a space suit on

347

00:15:50,949 --> 00:15:49,440

and so i think in the back of your head

348

00:15:52,949 --> 00:15:50,959

you know that it's a it's some place

349

00:15:54,870 --> 00:15:52,959

that you have to pay attention to

350

00:15:56,389 --> 00:15:54,880

um so if something happens in the middle

351

00:15:58,150 --> 00:15:56,399

of the night we all know that we're

352

00:15:59,910 --> 00:15:58,160

ready to get up and take care of any

353

00:16:01,590 --> 00:15:59,920

problems and so yeah there's a little

354

00:16:03,189 --> 00:16:01,600

bit that's that you think about but

355

00:16:05,910 --> 00:16:03,199

you're able to get a good night's sleep

356

00:16:07,749 --> 00:16:05,920

up here i think also because we we work

357

00:16:09,670 --> 00:16:07,759

like a normal work day and so then you

358

00:16:17,509 --> 00:16:09,680

sleep about eight hours a night so that

359

00:16:21,350 --> 00:16:19,990

hello sunny my name is baby and this is

360

00:16:23,350 --> 00:16:21,360

my question

361

00:16:29,910 --> 00:16:23,360

if all the astronauts speak different

362

00:16:33,749 --> 00:16:32,150

that's a really good question you guys

363

00:16:35,350 --> 00:16:33,759

obviously some of you know a little

364

00:16:37,189 --> 00:16:35,360

japanese some of you know a little

365

00:16:39,269 --> 00:16:37,199

russian and i think some of you know a

366

00:16:41,189 --> 00:16:39,279

little english about as much english as

367

00:16:42,069 --> 00:16:41,199

probably i know

368

00:16:45,670 --> 00:16:42,079

and so

369

00:16:48,870 --> 00:16:45,680

usually uh the conversation is a little

370

00:16:49,590 --> 00:16:48,880

bit russian and a little bit english

371

00:17:04,470 --> 00:16:49,600

the

372

00:17:07,110 --> 00:17:04,480

astronauts

373

00:17:08,630 --> 00:17:07,120

speak russian and english

374

00:17:10,549 --> 00:17:08,640

sometimes you don't know a word in the

375

00:17:12,949 --> 00:17:10,559

other language and so you say it in your

376

00:17:14,549 --> 00:17:12,959

language and maybe that other cosmonaut

377

00:17:16,230 --> 00:17:14,559

or astronaut knows it in their language

378

00:17:17,350 --> 00:17:16,240

and can help you so we do a little bit

379

00:17:20,710 --> 00:17:17,360

of

380

00:17:22,710 --> 00:17:20,720

wranglish for the most part up here and

381

00:17:25,510 --> 00:17:22,720

the flight control teams on the ground

382

00:17:29,190 --> 00:17:25,520

because we have a control team in russia

383

00:17:31,270 --> 00:17:29,200

in europe in japan and and actually in

384

00:17:33,110 --> 00:17:31,280

huntsville alabama as well as houston

385

00:17:35,430 --> 00:17:33,120

for the u.s side

386

00:17:36,789 --> 00:17:35,440

are all speaking their native languages

387

00:17:38,150 --> 00:17:36,799

and so when we're talking to them

388

00:17:45,430 --> 00:17:38,160

sometimes we have to speak in their

389

00:17:55,750 --> 00:17:48,230

hi sunny my name is michaela my question

390

00:18:00,710 --> 00:17:58,390

so the spacesuit is pretty big probably

391

00:18:01,750 --> 00:18:00,720

on the ground it weighs about 300 pounds

392

00:18:03,510 --> 00:18:01,760

or so

393

00:18:06,230 --> 00:18:03,520

it sort of looks what robonaut looks

394

00:18:08,390 --> 00:18:06,240

like right here it has a backpack and in

395

00:18:10,230 --> 00:18:08,400

our spacesuit backpack it all has all of

396

00:18:13,270 --> 00:18:10,240

our life support what i mean by that it

397

00:18:14,950 --> 00:18:13,280

has our oxygen in there and it has a way

398

00:18:16,789 --> 00:18:14,960

to get rid of the carbon dioxide

399

00:18:18,390 --> 00:18:16,799

remember on the ground here we have

400

00:18:20,789 --> 00:18:18,400

plants and trees that get rid of our

401  
00:18:23,110 --> 00:18:20,799  
carbon dioxide here inside of our

402  
00:18:24,950 --> 00:18:23,120  
backpack we have another piece of

403  
00:18:28,789 --> 00:18:24,960  
equipment that does that as well as the

404  
00:18:30,549 --> 00:18:28,799  
oxygen bottles it also has a cooling um

405  
00:18:33,350 --> 00:18:30,559  
system so that when we're working really

406  
00:18:36,230 --> 00:18:33,360  
hard it can pump cold water to our whole

407  
00:18:37,590 --> 00:18:36,240  
suit and keep us cooled down

408  
00:18:39,669 --> 00:18:37,600  
and that helps us because when we're

409  
00:18:41,110 --> 00:18:39,679  
working hard and it's hard to work in

410  
00:18:43,110 --> 00:18:41,120  
that suit because the suit is pretty

411  
00:18:45,430 --> 00:18:43,120  
stiff and so moving around in that suit

412  
00:18:47,750 --> 00:18:45,440  
is a little bit hard but just like

413  
00:18:50,630 --> 00:18:47,760

inside space walking is a funny word

414

00:18:52,390 --> 00:18:50,640

it's actually not really walking

415

00:18:54,070 --> 00:18:52,400

there's handrails on the outside of the

416

00:18:56,630 --> 00:18:54,080

space station also and that's how we

417

00:18:59,510 --> 00:18:56,640

move from one place to another using our

418

00:19:01,510 --> 00:18:59,520

arms and so moving the big suit around

419

00:19:02,950 --> 00:19:01,520

the stiff suit is difficult and so that

420

00:19:05,909 --> 00:19:02,960

cooling system i talked about on the

421

00:19:07,990 --> 00:19:05,919

backpack really helps and luckily none

422

00:19:09,750 --> 00:19:08,000

of that feels like it weighs anything so

423

00:19:11,510 --> 00:19:09,760

we don't have to worry about carrying

424

00:19:13,590 --> 00:19:11,520

that it's just a little bit stiff it's

425

00:19:16,310 --> 00:19:13,600

sort of like a we're working inside of a

426

00:19:17,990 --> 00:19:16,320

balloon but it works out pretty nice and

427

00:19:19,510 --> 00:19:18,000

we're getting ready to we've tried them

428

00:19:23,029 --> 00:19:19,520

on and we're getting ready to go outside

429

00:19:28,310 --> 00:19:25,669

thank you

430

00:19:34,870 --> 00:19:28,320

hi sonny my name is ryan what

431

00:19:37,909 --> 00:19:35,830

wow

432

00:19:40,230 --> 00:19:37,919

a lot of experiments actually i was

433

00:19:42,549 --> 00:19:40,240

telling you about the microgravity

434

00:19:45,270 --> 00:19:42,559

science glovebox here we just got done

435

00:19:46,870 --> 00:19:45,280

with some burning experiments all sorts

436

00:19:49,110 --> 00:19:46,880

of different types of materials we had

437

00:19:51,110 --> 00:19:49,120

in there we were trying to catch on fire

438

00:19:52,710 --> 00:19:51,120

to see if they would burn in space

439

00:19:55,510 --> 00:19:52,720

things burn a little bit differently

440

00:19:58,630 --> 00:19:55,520

here gravity has an effect on fire

441

00:20:02,070 --> 00:19:58,640

um we're also working on other liquids

442

00:20:03,510 --> 00:20:02,080

to see how they sort of congeal in space

443

00:20:06,310 --> 00:20:03,520

in gravity remember everything is sort

444

00:20:07,830 --> 00:20:06,320

of pulled down and so liquids and other

445

00:20:10,310 --> 00:20:07,840

types of

446

00:20:11,510 --> 00:20:10,320

fluids do different things up here we're

447

00:20:13,830 --> 00:20:11,520

putting a new experiment in the

448

00:20:16,070 --> 00:20:13,840

microgravity glove box to watch that

449

00:20:18,789 --> 00:20:16,080

under the influence of some

450

00:20:20,710 --> 00:20:18,799

electrical currents we're doing another

451  
00:20:23,110 --> 00:20:20,720  
fluids experiments in the japanese

452  
00:20:24,470 --> 00:20:23,120  
laboratory just around the corner

453  
00:20:26,870 --> 00:20:24,480  
we're also doing experiments on

454  
00:20:29,190 --> 00:20:26,880  
ourselves we're trying to figure out

455  
00:20:31,830 --> 00:20:29,200  
what we eat if what we eat contributes

456  
00:20:33,510 --> 00:20:31,840  
contributes to bone loss and muscle loss

457  
00:20:35,270 --> 00:20:33,520  
that happens in space

458  
00:20:37,110 --> 00:20:35,280  
and with that we're doing exercise to

459  
00:20:39,669 --> 00:20:37,120  
see how much exercise we actually need

460  
00:20:42,070 --> 00:20:39,679  
to do to maintain our bone mass and our

461  
00:20:44,230 --> 00:20:42,080  
muscle bone mass and bone density and

462  
00:20:46,149 --> 00:20:44,240  
muscle mass up in space so there's all

463  
00:20:47,909 --> 00:20:46,159

sorts of experiments robonauts and other

464

00:20:49,590 --> 00:20:47,919

experiments we have experiments on the

465

00:20:52,230 --> 00:20:49,600

outside of the space station that are

466

00:20:54,710 --> 00:20:52,240

detecting radiation for example and

467

00:21:00,630 --> 00:20:54,720

other particles from space so this whole

468

00:21:08,390 --> 00:21:04,070

thank you

469

00:21:09,909 --> 00:21:08,400

this time with us at wycliffe we are so

470

00:21:11,430 --> 00:21:09,919

appreciative and thank you for all that

471

00:21:14,950 --> 00:21:11,440

we've learned and all you're doing for

472

00:21:18,630 --> 00:21:16,390

well thank you very much and thank you

473

00:21:21,110 --> 00:21:18,640

very much for the invitation i know uh a

474

00:21:23,029 --> 00:21:21,120

certain gentleman eddie and lady bev

475

00:21:24,310 --> 00:21:23,039

were a big part of this so please tell

476

00:21:26,710 --> 00:21:24,320

them thank you

477

00:21:29,590 --> 00:21:26,720

and um to everybody in the community

478

00:21:32,390 --> 00:21:29,600

there in ohio i appreciate it it's where

479

00:21:48,230 --> 00:21:32,400

i was born and my mom is from so thank