



1
00:00:05,670 --> 00:00:01,990
station this is houston are you ready

2
00:00:10,549 --> 00:00:08,870
houston we are ready for the event

3
00:00:12,310 --> 00:00:10,559
leslie county high school this is

4
00:00:14,910 --> 00:00:12,320
mission control houston please call

5
00:00:19,830 --> 00:00:14,920
station 4 voice

6
00:00:22,630 --> 00:00:21,029
yeah

7
00:00:24,790 --> 00:00:22,640
our station

8
00:00:27,109 --> 00:00:24,800
this is congressman hal rogers

9
00:00:32,630 --> 00:00:27,119
with students from leslie county high

10
00:00:36,709 --> 00:00:34,790
we've got you loud and clear congressman

11
00:00:40,150 --> 00:00:36,719
and welcome to everybody on board the

12
00:00:45,270 --> 00:00:42,310
that's commander jeff williams and

13
00:00:47,270 --> 00:00:45,280

flight engineer kate rubins thank you so

14

00:00:50,310 --> 00:00:47,280

much for joining us

15

00:00:52,869 --> 00:00:50,320

today astronaut rubens congratulations

16

00:00:54,950 --> 00:00:52,879

on your very first space mission

17

00:00:57,910 --> 00:00:54,960

and commander williams congratulations

18

00:01:00,549 --> 00:00:57,920

on surpassing astronaut scott kelly's

19

00:01:06,390 --> 00:01:00,559

record last week for the most days in

20

00:01:06,400 --> 00:01:10,230

thank you very much

21

00:01:16,469 --> 00:01:13,750

we have about 500 students here

22

00:01:17,670 --> 00:01:16,479

who are eager to ask you some questions

23

00:01:19,670 --> 00:01:17,680

so

24

00:01:21,590 --> 00:01:19,680

at this time

25

00:01:26,070 --> 00:01:21,600

let's have the students introduce

26

00:01:27,510 --> 00:01:26,080

themselves and their questions

27

00:01:29,350 --> 00:01:27,520

kylee call it

28

00:01:30,710 --> 00:01:29,360

commander kate can you put into words

29

00:01:44,389 --> 00:01:30,720

the emotions you felt the first time

30

00:01:47,990 --> 00:01:45,910

hey uh

31

00:01:49,270 --> 00:01:48,000

thanks very much for your question and i

32

00:01:51,510 --> 00:01:49,280

would just want to tell you guys that it

33

00:01:53,030 --> 00:01:51,520

was probably the most amazing and

34

00:01:55,109 --> 00:01:53,040

surprising thing

35

00:01:57,590 --> 00:01:55,119

in my entire life in terms of the

36

00:01:59,590 --> 00:01:57,600

emotions that i felt when i saw the

37

00:02:01,670 --> 00:01:59,600

planet for the first time you just get a

38

00:02:05,190 --> 00:02:01,680

glimpse of it right out the window of

39

00:02:08,630 --> 00:02:05,200

the soyuz and it was beautiful and awe

40

00:02:15,910 --> 00:02:08,640

inspiring at the same time

41

00:02:19,510 --> 00:02:17,830

my name is james clark

42

00:02:21,430 --> 00:02:19,520

commander jeff

43

00:02:26,710 --> 00:02:21,440

how close are we to a new propulsion

44

00:02:30,630 --> 00:02:28,630

that's a good question in fact we're

45

00:02:33,509 --> 00:02:30,640

working on new propulsion systems to

46

00:02:35,589 --> 00:02:33,519

take us to places like mars

47

00:02:38,869 --> 00:02:35,599

which will take us months to get through

48

00:02:40,470 --> 00:02:38,879

to get to and that's the closest planet

49

00:02:42,949 --> 00:02:40,480

what you're talking about is out of the

50

00:02:45,670 --> 00:02:42,959

solar system heading toward other stars

51
00:02:47,830 --> 00:02:45,680
that's uh that's a way off in the future

52
00:02:49,910 --> 00:02:47,840
i think and many would consider it maybe

53
00:02:52,309 --> 00:02:49,920
even science fiction although i don't

54
00:02:54,150 --> 00:02:52,319
know if i'd go that far today but it was

55
00:02:57,190 --> 00:02:54,160
it's way off in the future just because

56
00:03:00,630 --> 00:02:57,200
of the practical uh problem of the great

57
00:03:08,710 --> 00:03:00,640
distances that we would have to cover

58
00:03:15,670 --> 00:03:10,790
hi my name is tommy guyer

59
00:03:19,750 --> 00:03:17,830
commander kate how is the space station

60
00:03:21,750 --> 00:03:19,760
helping nasa get closer to a mars

61
00:03:26,149 --> 00:03:21,760
expedition and what is the timeline for

62
00:03:30,229 --> 00:03:28,070
the kinds of technologies that we're

63
00:03:32,869 --> 00:03:30,239

testing out on space station are

64

00:03:34,869 --> 00:03:32,879

definitely helping us with our goals of

65

00:03:37,190 --> 00:03:34,879

going beyond low earth orbit so we have

66

00:03:39,270 --> 00:03:37,200

a really robust exploration program at

67

00:03:41,509 --> 00:03:39,280

nasa and that's looking at all the kinds

68

00:03:44,229 --> 00:03:41,519

of things that you need to do to send

69

00:03:46,229 --> 00:03:44,239

humans in space for long periods of time

70

00:03:48,949 --> 00:03:46,239

and to send us really far from our home

71

00:03:50,789 --> 00:03:48,959

planet and so the space station is

72

00:03:53,350 --> 00:03:50,799

basically a test bed for all of those

73

00:03:55,190 --> 00:03:53,360

technologies it's not just things that

74

00:03:57,990 --> 00:03:55,200

are going to be useful

75

00:03:59,990 --> 00:03:58,000

for this little small slice of nasa for

76

00:04:01,990 --> 00:04:00,000

the exploration programs but it's

77

00:04:03,990 --> 00:04:02,000

actually also testing a lot of the

78

00:04:06,229 --> 00:04:04,000

technologies that we need on earth

79

00:04:09,830 --> 00:04:06,239

things like recycling our air and our

80

00:04:12,309 --> 00:04:09,840

water things like medical devices useful

81

00:04:14,550 --> 00:04:12,319

in remote medical field sites

82

00:04:17,509 --> 00:04:14,560

places on earth that don't have access

83

00:04:19,830 --> 00:04:17,519

to the kinds of resources that we enjoy

84

00:04:21,590 --> 00:04:19,840

every day in the u.s so those sorts of

85

00:04:23,670 --> 00:04:21,600

technologies that we're testing out for

86

00:04:25,830 --> 00:04:23,680

mars journeys actually have a lot of

87

00:04:28,790 --> 00:04:25,840

applicability to solving some problems

88

00:04:36,390 --> 00:04:28,800

back on earth as well

89

00:04:39,830 --> 00:04:38,550

hi i'm sean baker

90

00:04:41,670 --> 00:04:39,840

and jeff

91

00:04:43,350 --> 00:04:41,680

when you do botanical experiments in

92

00:04:48,469 --> 00:04:43,360

space how do the plants know which way

93

00:04:53,189 --> 00:04:50,790

that's a great question and what they do

94

00:04:54,870 --> 00:04:53,199

is they are drawn to the light so the

95

00:04:56,230 --> 00:04:54,880

light source is really where they grow

96

00:04:58,070 --> 00:04:56,240

to and then of course they send their

97

00:05:00,550 --> 00:04:58,080

roots down into the nutrients that we

98

00:05:03,430 --> 00:05:00,560

have on board that they're growing in so

99

00:05:05,270 --> 00:05:03,440

it's it's driven by light

100

00:05:14,150 --> 00:05:05,280

which is probably true also in the

101
00:05:18,550 --> 00:05:17,110
hi i'm madison little kate what is the

102
00:05:20,550 --> 00:05:18,560
most valuable thing you learned in

103
00:05:22,070 --> 00:05:20,560
elementary school that you continue

104
00:05:26,950 --> 00:05:22,080
that you continue to use today

105
00:05:31,749 --> 00:05:29,990
hey i said when i got up here after our

106
00:05:33,670 --> 00:05:31,759
first few hundreds of

107
00:05:35,830 --> 00:05:33,680
orbits of the earth i might finally be

108
00:05:36,790 --> 00:05:35,840
able to pass my fourth grade geology

109
00:05:37,590 --> 00:05:36,800
exam

110
00:05:39,830 --> 00:05:37,600
so

111
00:05:41,350 --> 00:05:39,840
i think there's actually a lot that you

112
00:05:44,310 --> 00:05:41,360
end up learning in elementary school

113
00:05:46,870 --> 00:05:44,320

that makes you a a good crew member up

114

00:05:48,550 --> 00:05:46,880

here things about putting stuff away

115

00:05:50,310 --> 00:05:48,560

where where it belongs you can see we've

116

00:05:52,710 --> 00:05:50,320

got a lot of items out on the space

117

00:05:53,590 --> 00:05:52,720

station we're living in close quarters

118

00:05:57,110 --> 00:05:53,600

just

119

00:05:58,309 --> 00:05:57,120

anything that that would be applicable

120

00:05:59,909 --> 00:05:58,319

to

121

00:06:02,950 --> 00:05:59,919

having a good elementary school

122

00:06:04,230 --> 00:06:02,960

classroom plus a lot of lessons on

123

00:06:06,950 --> 00:06:04,240

geography

124

00:06:09,830 --> 00:06:06,960

even some physics a lot of biology and

125

00:06:17,189 --> 00:06:09,840

math going on up here

126

00:06:21,110 --> 00:06:19,270

hi my name is emily napier and my

127

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

question is for

128

00:06:25,029 --> 00:06:23,120

um

129

00:06:26,950 --> 00:06:25,039

it's for jeff

130

00:06:28,629 --> 00:06:26,960

how has your understanding or view of

131

00:06:32,390 --> 00:06:28,639

the universe changed since seeing it

132

00:06:35,670 --> 00:06:33,990

that's a great question it would take me

133

00:06:37,590 --> 00:06:35,680

a long time to completely answer that

134

00:06:39,990 --> 00:06:37,600

but uh just to

135

00:06:41,749 --> 00:06:40,000

um well there's a couple things one you

136

00:06:45,510 --> 00:06:41,759

learn to appreciate the vastness of

137

00:06:47,189 --> 00:06:45,520

space uh the the infinity if you will uh

138

00:06:50,629 --> 00:06:47,199

when you look out into the deep star

139

00:06:52,309 --> 00:06:50,639

field but also you

140

00:06:54,309 --> 00:06:52,319

tend to focus and all of us tend to

141

00:06:55,749 --> 00:06:54,319

focus more on the earth we get off the

142

00:06:58,230 --> 00:06:55,759

planet and then we look back at the

143

00:07:00,550 --> 00:06:58,240

earth and see this beautiful magnificent

144

00:07:02,790 --> 00:07:00,560

planet that is our home

145

00:07:04,629 --> 00:07:02,800

very unique in uh in the observable

146

00:07:07,830 --> 00:07:04,639

universe um

147

00:07:10,629 --> 00:07:07,840

uh uniquely outfitted for our habitation

148

00:07:13,110 --> 00:07:10,639

if you will um and it is our home so

149

00:07:14,710 --> 00:07:13,120

that's that it deepens my appreciation

150

00:07:17,670 --> 00:07:14,720

and understanding of that more than

151

00:07:25,029 --> 00:07:17,680

anything else

152

00:07:28,870 --> 00:07:26,790

hi my name is brady crisp and my

153

00:07:30,469 --> 00:07:28,880

question is for kate

154

00:07:32,550 --> 00:07:30,479

space travel can put the human body

155

00:07:34,309 --> 00:07:32,560

through extreme amounts of stress

156

00:07:35,990 --> 00:07:34,319

what training does an astronaut have to

157

00:07:40,710 --> 00:07:36,000

go through to be physically and mentally

158

00:07:45,350 --> 00:07:42,629

that's a great question and we are

159

00:07:46,869 --> 00:07:45,360

getting ready right now for a spacewalk

160

00:07:49,430 --> 00:07:46,879

that we're going to do tomorrow that is

161

00:07:51,350 --> 00:07:49,440

one of the most physically and mentally

162

00:07:54,070 --> 00:07:51,360

stressful things that we do up here and

163

00:07:56,309 --> 00:07:54,080

so we do hundreds if not thousands of

164

00:07:58,629 --> 00:07:56,319

hours of training on earth

165

00:08:00,790 --> 00:07:58,639

we train in the spacesuits in a giant

166

00:08:02,230 --> 00:08:00,800

pool underwater in the neutral buoyancy

167

00:08:04,230 --> 00:08:02,240

laboratory

168

00:08:06,950 --> 00:08:04,240

we go through every medical test

169

00:08:08,710 --> 00:08:06,960

imaginable we learn a lot actually about

170

00:08:11,110 --> 00:08:08,720

human physiology

171

00:08:13,270 --> 00:08:11,120

just by putting healthy people under

172

00:08:14,710 --> 00:08:13,280

these kinds of stresses

173

00:08:16,629 --> 00:08:14,720

these are a lot of the same things that

174

00:08:18,629 --> 00:08:16,639

you might get when you're putting test

175

00:08:21,510 --> 00:08:18,639

pilots under very stressful conditions

176

00:08:24,469 --> 00:08:21,520

as well we go into the centrifuge we've

177

00:08:26,790 --> 00:08:24,479

both done eight g runs in the centrifuge

178

00:08:30,150 --> 00:08:26,800

in order to prepare for launch and

179

00:08:32,310 --> 00:08:30,160

re-entry and so pretty much anything

180

00:08:34,469 --> 00:08:32,320

that you can imagine you might do to a

181

00:08:37,509 --> 00:08:34,479

person we've done in training and that

182

00:08:39,750 --> 00:08:37,519

helps us be prepared for any eventuality

183

00:08:43,029 --> 00:08:39,760

we feel like we've trained and we can

184

00:08:50,710 --> 00:08:43,039

handle any situation that comes our way

185

00:08:54,870 --> 00:08:52,949

hi my name is melissa day and my

186

00:08:56,389 --> 00:08:54,880

question is for commander jeff

187

00:09:01,269 --> 00:08:56,399

have you ever seen anything

188

00:09:06,230 --> 00:09:04,710

i have not seen anything unexplainable

189

00:09:07,750 --> 00:09:06,240

i've seen things that i didn't quite

190

00:09:09,590 --> 00:09:07,760

recognize

191

00:09:11,110 --> 00:09:09,600

but everything has been explainable

192

00:09:13,269 --> 00:09:11,120

everything

193

00:09:14,710 --> 00:09:13,279

has been

194

00:09:17,110 --> 00:09:14,720

explained i mean what you're what you're

195

00:09:19,269 --> 00:09:17,120

getting at is the ufos and all that i've

196

00:09:21,430 --> 00:09:19,279

never seen any evidence of of any of

197

00:09:23,829 --> 00:09:21,440

that everything has been explainable

198

00:09:27,350 --> 00:09:23,839

albeit some very phenomenal things that

199

00:09:27,360 --> 00:09:33,430

thank you

200

00:09:38,150 --> 00:09:35,590

hello my name is emily griffith and my

201
00:09:40,150 --> 00:09:38,160
question is for kate what advice do you

202
00:09:44,710 --> 00:09:40,160
have for someone dreaming of becoming an

203
00:09:49,590 --> 00:09:46,949
i think you should pick something that

204
00:09:51,990 --> 00:09:49,600
you are extremely passionate about and

205
00:09:54,310 --> 00:09:52,000
figure out what it is that really drives

206
00:09:56,550 --> 00:09:54,320
you what do you want to do with your

207
00:09:58,470 --> 00:09:56,560
life whatever that passion and that

208
00:09:59,990 --> 00:09:58,480
dream and that goal is

209
00:10:01,910 --> 00:10:00,000
one of the things that i notice about a

210
00:10:04,150 --> 00:10:01,920
lot of my fellow astronauts is that

211
00:10:06,710 --> 00:10:04,160
they're incredibly motivated people that

212
00:10:09,110 --> 00:10:06,720
they have picked something that they

213
00:10:11,269 --> 00:10:09,120

are inspired to do and they live out

214

00:10:13,670 --> 00:10:11,279

that motivation and that inspiration

215

00:10:15,990 --> 00:10:13,680

every day and i think that's great

216

00:10:17,110 --> 00:10:16,000

advice for any career and particularly

217

00:10:18,790 --> 00:10:17,120

if you're dreaming about being an

218

00:10:24,870 --> 00:10:18,800

astronaut

219

00:10:29,269 --> 00:10:27,430

hi my name is seth melton uh commander

220

00:10:34,230 --> 00:10:29,279

jeff what would you tell a six-year-old

221

00:10:38,790 --> 00:10:36,230

i would tell a six-year-old to just

222

00:10:40,790 --> 00:10:38,800

continue to dream and then to work hard

223

00:10:42,230 --> 00:10:40,800

and study hard in school and be a

224

00:10:44,150 --> 00:10:42,240

responsible

225

00:10:46,389 --> 00:10:44,160

person in the community as you grow up

226

00:10:48,790 --> 00:10:46,399

and take on more responsibility and

227

00:10:51,430 --> 00:10:48,800

serve others around you

228

00:10:54,150 --> 00:10:51,440

and find what your passions are as you

229

00:10:56,470 --> 00:10:54,160

get older in terms of of what to study

230

00:10:58,150 --> 00:10:56,480

and then follow those passions and then

231

00:11:01,509 --> 00:10:58,160

when doors are open

232

00:11:08,550 --> 00:11:01,519

be ready to enter those doors

233

00:11:13,430 --> 00:11:11,430

hi my name is shelby sparks my question

234

00:11:15,269 --> 00:11:13,440

is for commander kate

235

00:11:21,670 --> 00:11:15,279

how have you adapted your exercise

236

00:11:25,990 --> 00:11:23,430

well we just do a whole lot more of it

237

00:11:28,870 --> 00:11:26,000

up here i enjoy exercising on the ground

238

00:11:30,870 --> 00:11:28,880

i do a lot of triathlons marathons

239

00:11:32,790 --> 00:11:30,880

weightlifting crossfit and that's

240

00:11:35,670 --> 00:11:32,800

basically the same thing that we've got

241

00:11:37,829 --> 00:11:35,680

up here so we have a resistive exercise

242

00:11:40,150 --> 00:11:37,839

device obviously we can't lift weights

243

00:11:42,470 --> 00:11:40,160

in space but we can work against vacuum

244

00:11:44,230 --> 00:11:42,480

cylinders and so that lets us keep our

245

00:11:46,870 --> 00:11:44,240

bones healthy and keep our muscles

246

00:11:49,509 --> 00:11:46,880

strong we run on a treadmill

247

00:11:51,590 --> 00:11:49,519

we have a bicycle actually it's sitting

248

00:11:54,550 --> 00:11:51,600

right here next to me and we can get on

249

00:11:57,190 --> 00:11:54,560

this bicycle in microgravity so we have

250

00:11:59,910 --> 00:11:57,200

a whole exercise routine and they they

251

00:12:01,430 --> 00:11:59,920

want to keep us very fit a lot of the

252

00:12:03,430 --> 00:12:01,440

same things that you guys would be doing

253

00:12:05,750 --> 00:12:03,440

on earth so if you're out going for a

254

00:12:06,790 --> 00:12:05,760

run you can think about they might be

255

00:12:09,030 --> 00:12:06,800

doing the same thing on the space

256

00:12:16,310 --> 00:12:09,040

station right now

257

00:12:21,190 --> 00:12:18,710

hi my name is ashley standifer and my

258

00:12:23,509 --> 00:12:21,200

question is for commander jeff

259

00:12:25,509 --> 00:12:23,519

jeff how is your experience in space

260

00:12:30,470 --> 00:12:25,519

influenced your view on intelligent life

261

00:12:36,230 --> 00:12:33,509

uh well let's see how has it influenced

262

00:12:38,310 --> 00:12:36,240

my view on life on earth

263

00:12:40,629 --> 00:12:38,320

i have learned to appreciate earth and

264

00:12:46,389 --> 00:12:43,350

and uh and the uh provisions that we

265

00:12:49,590 --> 00:12:46,399

have on earth that are given to us i'm a

266

00:12:52,150 --> 00:12:49,600

a believer so given to us by our creator

267

00:12:54,949 --> 00:12:52,160

to uniquely provision us and give us

268

00:12:57,509 --> 00:12:54,959

what we need uh on earth to not only the

269

00:12:59,910 --> 00:12:57,519

food and in all those things but uh but

270

00:13:01,750 --> 00:12:59,920

an atmosphere that recycles itself and

271

00:13:04,550 --> 00:13:01,760

water and all of those things that we

272

00:13:09,910 --> 00:13:04,560

need necessary for life

273

00:13:14,949 --> 00:13:12,389

hi my name is tori watts my question is

274

00:13:16,870 --> 00:13:14,959

for kate with all the space particles

275

00:13:18,949 --> 00:13:16,880

how can nasa probes travel vast

276

00:13:23,350 --> 00:13:18,959

distances in space without colliding

277

00:13:27,430 --> 00:13:25,350

so we talk about this uh when we're

278

00:13:29,750 --> 00:13:27,440

flying also and it's a little bit we

279

00:13:32,150 --> 00:13:29,760

call it the um the big sky little

280

00:13:34,870 --> 00:13:32,160

airplane theory so there's a lot of

281

00:13:36,710 --> 00:13:34,880

things that are going around the earth

282

00:13:38,389 --> 00:13:36,720

there's a lot of things in in low earth

283

00:13:41,350 --> 00:13:38,399

orbit and there's of course a lot in our

284

00:13:42,790 --> 00:13:41,360

solar system but the expanse of space is

285

00:13:44,310 --> 00:13:42,800

so huge

286

00:13:46,470 --> 00:13:44,320

in general if you're talking about

287

00:13:47,990 --> 00:13:46,480

things beyond low earth orbit

288

00:13:49,829 --> 00:13:48,000

you have a pretty low likelihood that

289

00:13:51,670 --> 00:13:49,839

they're going to collide with each other

290

00:13:53,509 --> 00:13:51,680

when we're in low earth orbit of course

291

00:13:56,069 --> 00:13:53,519

we do have a lot of space debris

292

00:13:57,509 --> 00:13:56,079

sometimes called space junk and there

293

00:13:59,189 --> 00:13:57,519

are folks on the ground actually that

294

00:14:02,150 --> 00:13:59,199

can track that for us

295

00:14:04,470 --> 00:14:02,160

we can boost the station's altitude if

296

00:14:06,790 --> 00:14:04,480

we need to to avoid any of that space

297

00:14:09,350 --> 00:14:06,800

junk and so there's whole teams of folks

298

00:14:11,350 --> 00:14:09,360

out there that are watching uh what's

299

00:14:13,829 --> 00:14:11,360

going on in low earth orbit and they're

300

00:14:22,790 --> 00:14:13,839

keeping us safe

301
00:14:27,670 --> 00:14:24,629
hi my name is kaylee mullins and my

302
00:14:29,590 --> 00:14:27,680
question is for commander jeff

303
00:14:31,509 --> 00:14:29,600
how long did it take for you to orient

304
00:14:35,750 --> 00:14:31,519
yourself to the fact there is no up in

305
00:14:39,350 --> 00:14:37,670
that's a great question everybody goes

306
00:14:40,629 --> 00:14:39,360
through an adaptation period when they

307
00:14:42,550 --> 00:14:40,639
get up here

308
00:14:45,350 --> 00:14:42,560
the first couple of days you adapt

309
00:14:47,350 --> 00:14:45,360
fairly rapidly but it can take folks in

310
00:14:48,150 --> 00:14:47,360
my observation and i've been up here

311
00:14:50,629 --> 00:14:48,160
with

312
00:14:52,069 --> 00:14:50,639
probably over 50 people

313
00:14:55,030 --> 00:14:52,079

over the years

314

00:14:56,949 --> 00:14:55,040

it takes about six weeks to get fully

315

00:14:59,590 --> 00:14:56,959

adapted to be able to work in three

316

00:15:01,750 --> 00:14:59,600

dimensions and not have to rely on a

317

00:15:03,430 --> 00:15:01,760

logical up or down

318

00:15:06,629 --> 00:15:03,440

you can make anything up that you want

319

00:15:14,389 --> 00:15:06,639

to like kate's doing right now

320

00:15:19,350 --> 00:15:16,550

hi my name is dalton sperlock and my

321

00:15:20,870 --> 00:15:19,360

question is for kate

322

00:15:26,629 --> 00:15:20,880

why is it not possible to physically

323

00:15:31,110 --> 00:15:28,870

well it is physically possible we've

324

00:15:33,749 --> 00:15:31,120

sent humans to the mune the united

325

00:15:35,509 --> 00:15:33,759

states has proven that we can actually

326

00:15:37,670 --> 00:15:35,519

land uh

327

00:15:39,509 --> 00:15:37,680

people and a large amount of equipment

328

00:15:42,710 --> 00:15:39,519

on another body

329

00:15:45,670 --> 00:15:42,720

we are planning right now to send people

330

00:15:47,990 --> 00:15:45,680

and spacecraft to mars so there's a lot

331

00:15:50,310 --> 00:15:48,000

of really interesting problems that go

332

00:15:52,069 --> 00:15:50,320

along with those kinds of long journeys

333

00:15:53,990 --> 00:15:52,079

and this may be something

334

00:15:55,990 --> 00:15:54,000

for you guys as you're finishing high

335

00:15:57,430 --> 00:15:56,000

school getting into college and thinking

336

00:15:59,269 --> 00:15:57,440

about what you want to do with your

337

00:16:01,030 --> 00:15:59,279

careers is there something that you're

338

00:16:03,749 --> 00:16:01,040

really interested in that you could

339

00:16:05,590 --> 00:16:03,759

study that could help us get spacecraft

340

00:16:07,670 --> 00:16:05,600

to the surface of a planet i think it's

341

00:16:10,069 --> 00:16:07,680

a fantastic question

342

00:16:12,710 --> 00:16:10,079

and it covers all all range of fields

343

00:16:13,829 --> 00:16:12,720

all range of disciplines

344

00:16:23,269 --> 00:16:13,839

thank you

345

00:16:28,310 --> 00:16:25,749

hello my name is nick gibson and my

346

00:16:30,790 --> 00:16:28,320

question is for commander jeff

347

00:16:36,389 --> 00:16:30,800

went on a spacewalk can you feel the

348

00:16:40,790 --> 00:16:38,069

that's a great question outside the

349

00:16:42,870 --> 00:16:40,800

space station uh the thermal environment

350

00:16:45,189 --> 00:16:42,880

is extreme and when the sun is shining

351

00:16:46,949 --> 00:16:45,199

it can be several hundred degrees uh the

352

00:16:48,389 --> 00:16:46,959

material out there the outside surface

353

00:16:51,269 --> 00:16:48,399

can be several hundred degrees above

354

00:16:54,629 --> 00:16:51,279

zero and in at night time it can be a

355

00:16:56,790 --> 00:16:54,639

150 to 180 degrees below zero so our

356

00:16:58,629 --> 00:16:56,800

spacesuit actually protects us

357

00:16:59,910 --> 00:16:58,639

from those extremes we have a cooling

358

00:17:02,310 --> 00:16:59,920

system that

359

00:17:03,829 --> 00:17:02,320

helps keep us from overheating

360

00:17:05,669 --> 00:17:03,839

and usually we have it on minimum

361

00:17:08,470 --> 00:17:05,679

because it's very easy to get cold out

362

00:17:10,630 --> 00:17:08,480

there uh and then also the ground team

363

00:17:13,909 --> 00:17:10,640

does some predictions to keep us out of

364

00:17:15,429 --> 00:17:13,919

the extremely hot areas especially and

365

00:17:17,189 --> 00:17:15,439

to warn us of those so we plan the

366

00:17:19,669 --> 00:17:17,199

spacewalks to stay out of the extremely

367

00:17:21,750 --> 00:17:19,679

hot areas but beyond that the spacesuit

368

00:17:24,150 --> 00:17:21,760

protects us

369

00:17:25,829 --> 00:17:24,160

thank you

370

00:17:31,990 --> 00:17:25,839

i think we have time for one more quick

371

00:17:36,470 --> 00:17:33,909

hi my name is kennedy howard and my

372

00:17:37,830 --> 00:17:36,480

question is for kate is space flight

373

00:17:42,789 --> 00:17:37,840

something that will one day be

374

00:17:47,750 --> 00:17:45,590

i certainly hope so i think that space

375

00:17:49,990 --> 00:17:47,760

travel is one of the most fascinating

376

00:17:52,789 --> 00:17:50,000

and interesting things that we do as

377

00:17:55,190 --> 00:17:52,799

human beings and it really

378

00:17:57,909 --> 00:17:55,200

shows us what we can accomplish when we

379

00:18:00,710 --> 00:17:57,919

are working together on a goal

380

00:18:02,870 --> 00:18:00,720

i have experienced so much wonder and so

381

00:18:05,430 --> 00:18:02,880

much joy just being up here for the

382

00:18:07,029 --> 00:18:05,440

first time in space and so my dream

383

00:18:08,390 --> 00:18:07,039

would be to be able to share that with

384

00:18:10,870 --> 00:18:08,400

you and to have

385

00:18:13,430 --> 00:18:10,880

many people be able to experience

386

00:18:15,590 --> 00:18:13,440

the kinds of things that that we see as

387

00:18:18,870 --> 00:18:15,600

incredible phenomenon just on a daily

388

00:18:20,230 --> 00:18:18,880

basis in orbit around our planet

389

00:18:22,070 --> 00:18:20,240

thank you

390

00:18:29,270 --> 00:18:22,080

can you tell us over what part of the

391

00:18:34,070 --> 00:18:31,990

we go around the earth every 90 minutes

392

00:18:35,990 --> 00:18:34,080

we've been busy preparing the suits we

393

00:18:38,310 --> 00:18:36,000

do have passes over the u.s this

394

00:18:40,630 --> 00:18:38,320

afternoon so every orbit we're coming

395

00:18:42,630 --> 00:18:40,640

over a little bit farther west

396

00:18:43,590 --> 00:18:42,640

i don't know exactly where we are at the

397

00:18:45,990 --> 00:18:43,600

moment

398

00:18:50,310 --> 00:18:46,000

but if we're not over

399

00:18:50,320 --> 00:18:54,789

we we will we will wave at you

400

00:19:00,390 --> 00:18:57,350

well thank you commander williams and

401
00:19:02,630 --> 00:19:00,400
astronaut rubens for joining us today

402
00:19:03,990 --> 00:19:02,640
and oh by the way good luck on your

403
00:19:05,270 --> 00:19:04,000
spacewalk

404
00:19:06,070 --> 00:19:05,280
tomorrow

405
00:19:10,630 --> 00:19:06,080
and

406
00:19:14,710 --> 00:19:12,150
thank you very much it was great to have

407
00:19:30,390 --> 00:19:14,720
you on board today

408
00:19:38,710 --> 00:19:32,950
station this is houston acr

409
00:19:42,549 --> 00:19:40,390
thank you to all participants and guests

410
00:19:44,789 --> 00:19:42,559
from leslie county high school stationed