



1  
00:00:06,230 --> 00:00:03,909  
atlantis iss this is houston acr please

2  
00:00:13,030 --> 00:00:06,240  
stand by for the nasa explorer school

3  
00:00:17,510 --> 00:00:15,669  
my name is evan and i go to john b carey

4  
00:00:19,670 --> 00:00:17,520  
in richmond virginia

5  
00:00:31,029 --> 00:00:19,680  
i would like to know why do you wear the

6  
00:00:34,709 --> 00:00:33,350  
well the uh purple ones kind of clash

7  
00:00:36,470 --> 00:00:34,719  
with my eyes

8  
00:00:38,790 --> 00:00:36,480  
i think i look a lot better in orange

9  
00:00:41,910 --> 00:00:38,800  
actually the orange color

10  
00:00:44,470 --> 00:00:41,920  
is uh for uh make us more visible in

11  
00:00:45,910 --> 00:00:44,480  
case people need to find us and

12  
00:00:47,910 --> 00:00:45,920  
the reason we wear the suits is to

13  
00:00:49,270 --> 00:00:47,920

protect us

14

00:00:50,950 --> 00:00:49,280

in the event that

15

00:00:53,270 --> 00:00:50,960

something happens that we're not

16

00:01:03,189 --> 00:00:53,280

expecting going either uphill or

17

00:01:07,510 --> 00:01:05,910

my name is chyna royals and i go to fort

18

00:01:10,149 --> 00:01:07,520

hikes elementary school in columbia

19

00:01:12,710 --> 00:01:10,159

south carolina i would like to know what

20

00:01:14,710 --> 00:01:12,720

are differences in living in the space

21

00:01:19,749 --> 00:01:14,720

station from living in your home on

22

00:01:23,510 --> 00:01:21,510

that's a good question i can tell you

23

00:01:24,710 --> 00:01:23,520

for starters nothing stays where you put

24

00:01:26,630 --> 00:01:24,720

it

25

00:01:28,070 --> 00:01:26,640

everything floats

26

00:01:30,149 --> 00:01:28,080

including

27

00:01:31,910 --> 00:01:30,159

yourself your food your clothes

28

00:01:33,590 --> 00:01:31,920

everything that you're working on so you

29

00:01:35,429 --> 00:01:33,600

have to strap everything down you can't

30

00:01:36,870 --> 00:01:35,439

lay it down on the table and you can't

31

00:01:43,109 --> 00:01:36,880

keep your eyes off of it unless it's

32

00:01:47,270 --> 00:01:45,190

hi my name is samantha schwon and i go

33

00:01:49,590 --> 00:01:47,280

to dr rodriguez elementary in heart

34

00:01:57,429 --> 00:01:49,600

engine texas i would like to know what

35

00:02:01,109 --> 00:01:59,429

hey great question uh there's a lot of

36

00:02:02,789 --> 00:02:01,119

really great parts about

37

00:02:05,270 --> 00:02:02,799

about the job

38

00:02:07,990 --> 00:02:05,280

being up here floating turns out to be

39

00:02:10,550 --> 00:02:08,000

amazingly fun and you can see a couple

40

00:02:13,510 --> 00:02:10,560

of my crewmates here upside down and

41

00:02:15,190 --> 00:02:13,520

then the the other great part is looking

42

00:02:17,910 --> 00:02:15,200

out the window

43

00:02:26,790 --> 00:02:17,920

the views looking down at the earth are

44

00:02:31,190 --> 00:02:29,110

hi i'm kalia and i'm in the sixth grade

45

00:02:33,830 --> 00:02:31,200

at hop good elementary in murfreesboro

46

00:02:35,350 --> 00:02:33,840

tennessee my question is what do you do

47

00:02:41,350 --> 00:02:35,360

in your free time and how much free time

48

00:02:44,710 --> 00:02:43,589

hey what i like to do is to look out the

49

00:02:46,710 --> 00:02:44,720

window

50

00:02:48,150 --> 00:02:46,720

and watch the earth go by it's just

51  
00:02:49,830 --> 00:02:48,160  
beautiful

52  
00:02:51,670 --> 00:02:49,840  
we don't get any free time so i have to

53  
00:02:53,589 --> 00:02:51,680  
steal it from the boss

54  
00:02:54,790 --> 00:02:53,599  
pretty much but uh the most i think

55  
00:02:56,070 --> 00:02:54,800  
everybody does that when they get a

56  
00:02:57,910 --> 00:02:56,080  
moment off they kind of look out the

57  
00:02:59,830 --> 00:02:57,920  
window and just see the whole world go

58  
00:03:07,750 --> 00:02:59,840  
by it's like a geography lesson it's

59  
00:03:12,790 --> 00:03:09,750  
hi my name is yvette i am a fourth

60  
00:03:14,869 --> 00:03:12,800  
grader in harlingen texas i am bilingual

61  
00:03:16,869 --> 00:03:14,879  
and i was wondering how many languages

62  
00:03:23,509 --> 00:03:16,879  
you need to speak to work on the

63  
00:03:27,110 --> 00:03:24,390

i think

64

00:03:29,750 --> 00:03:27,120

good question

65

00:03:31,670 --> 00:03:29,760

uh well the the official main language

66

00:03:33,430 --> 00:03:31,680

on the space station one that we all

67

00:03:34,550 --> 00:03:33,440

understand is english

68

00:03:36,229 --> 00:03:34,560

however

69

00:03:38,789 --> 00:03:36,239

it's very essential that you learn

70

00:03:41,910 --> 00:03:38,799

russian as well since uh we tend to

71

00:03:43,190 --> 00:03:41,920

operate uh in the soyuz or we do operate

72

00:03:46,789 --> 00:03:43,200

in the soyuz

73

00:03:48,869 --> 00:03:46,799

spacecraft solely in russian um but we

74

00:03:50,630 --> 00:03:48,879

have a lot of talented very bright

75

00:03:54,309 --> 00:03:50,640

people on board and some of them know

76

00:03:58,470 --> 00:03:54,319

several languages such as japanese

77

00:04:00,470 --> 00:03:58,480

got suici on board and uh french german

78

00:04:02,070 --> 00:04:00,480

tj knows german so

79

00:04:04,309 --> 00:04:02,080

it's a when you have an international

80

00:04:11,670 --> 00:04:04,319

space station it's almost endless uh the

81

00:04:16,229 --> 00:04:13,750

my name is paige and i go to later

82

00:04:18,870 --> 00:04:16,239

middle school and lived in kentucky my

83

00:04:21,349 --> 00:04:18,880

question is what does it feel like after

84

00:04:26,870 --> 00:04:21,359

being on the space station when you come

85

00:04:32,150 --> 00:04:28,950

i can answer that

86

00:04:36,710 --> 00:04:34,150

well uh when you come back to earth

87

00:04:39,670 --> 00:04:36,720

things feel really really heavy

88

00:04:41,189 --> 00:04:39,680

um i remember taking off my helmet and

89

00:04:43,189 --> 00:04:41,199

feeling like i was holding a pickup

90

00:04:44,629 --> 00:04:43,199

truck in my hand it felt so incredibly i

91

00:04:46,390 --> 00:04:44,639

was like oh my goodness how am i ever

92

00:04:49,030 --> 00:04:46,400

going to brush my teeth my toothbrush is

93

00:04:51,270 --> 00:04:49,040

going to feel like a ton of bricks but

94

00:04:53,430 --> 00:04:51,280

um turns out that you get really used to

95

00:04:54,710 --> 00:04:53,440

gravity again pretty quickly within like

96

00:04:55,990 --> 00:04:54,720

an hour or so

97

00:04:58,070 --> 00:04:56,000

and

98

00:05:00,469 --> 00:04:58,080

you uh after it takes a little while for

99

00:05:01,990 --> 00:05:00,479

you to get all your senses back uh and

100

00:05:04,390 --> 00:05:02,000

they won't let you drive a car usually

101  
00:05:05,830 --> 00:05:04,400  
for about a month but uh other than that

102  
00:05:13,909 --> 00:05:05,840  
uh after about a month you're pretty

103  
00:05:17,990 --> 00:05:16,070  
my name is antonio and i go to

104  
00:05:20,469 --> 00:05:18,000  
elementary learning center in cudahy

105  
00:05:30,790 --> 00:05:20,479  
california and my question is is there

106  
00:05:33,909 --> 00:05:31,749  
hey

107  
00:05:36,310 --> 00:05:33,919  
well we're going very very fast up here

108  
00:05:38,230 --> 00:05:36,320  
five miles per second but we're out of

109  
00:05:39,830 --> 00:05:38,240  
the atmosphere but there's a little bit

110  
00:05:41,830 --> 00:05:39,840  
of atmosphere left there so there are a

111  
00:05:43,990 --> 00:05:41,840  
few atoms i guess hitting the front of

112  
00:05:46,230 --> 00:05:44,000  
station at five miles per second so

113  
00:05:48,469 --> 00:05:46,240

that's a very weak wind but it's enough

114

00:05:50,150 --> 00:05:48,479

to slow the space station down and make

115

00:05:52,390 --> 00:05:50,160

it slowly fall back to earth so every so

116

00:05:54,230 --> 00:05:52,400

often we have to boost it back up again

117

00:06:02,070 --> 00:05:54,240

using a rocket motor on the back of the

118

00:06:06,629 --> 00:06:04,629

my name is aaron smith and i go to

119

00:06:09,029 --> 00:06:06,639

orleans elementary school

120

00:06:11,350 --> 00:06:09,039

in orleans vermont my question is what

121

00:06:18,629 --> 00:06:11,360

is the temperature at the international

122

00:06:22,629 --> 00:06:20,710

inside here it's uh

123

00:06:24,230 --> 00:06:22,639

just like it is at school for you it's

124

00:06:26,870 --> 00:06:24,240

room temperature very comfortable we're

125

00:06:29,670 --> 00:06:26,880

just working out here in shirt sleeves

126

00:06:31,990 --> 00:06:29,680

but when we go outside on our spacewalks

127

00:06:34,950 --> 00:06:32,000

the temperatures can vary plus or minus

128

00:06:44,150 --> 00:06:34,960

200 degrees depending on whether the

129

00:06:48,390 --> 00:06:46,230

hi my name is jackson i am a sixth

130

00:06:50,950 --> 00:06:48,400

grader at hobgood elementary in

131

00:06:52,469 --> 00:06:50,960

murfreesboro tennessee my question is

132

00:06:54,230 --> 00:06:52,479

what is one of the worst and best

133

00:06:59,909 --> 00:06:54,240

effects of being in a microgravity

134

00:07:05,670 --> 00:07:01,029

for

135

00:07:07,029 --> 00:07:05,680

it's very nice to be able to float

136

00:07:09,430 --> 00:07:07,039

that's probably the best effect you get

137

00:07:12,469 --> 00:07:09,440

to hang around and float and you can

138

00:07:13,749 --> 00:07:12,479

become an expert gymnast in seconds you

139

00:07:15,430 --> 00:07:13,759

can do all sorts of things you can't do

140

00:07:17,350 --> 00:07:15,440

on the ground

141

00:07:19,270 --> 00:07:17,360

one of the long-term problems with being

142

00:07:21,990 --> 00:07:19,280

in this environment however is

143

00:07:23,430 --> 00:07:22,000

bone loss muscle deconditioning and

144

00:07:25,350 --> 00:07:23,440

over time we're starting to learn how to

145

00:07:27,110 --> 00:07:25,360

deal with that on board tracy here works

146

00:07:28,629 --> 00:07:27,120

out several hours a day trying to stay

147

00:07:31,029 --> 00:07:28,639

strong so when she gets home in six

148

00:07:37,909 --> 00:07:31,039

months she can

149

00:07:42,150 --> 00:07:40,230

my name is sammy and i am a senior at

150

00:07:44,230 --> 00:07:42,160

wendover high school my question is how

151

00:07:55,510 --> 00:07:44,240

do you feel about flying on the last

152

00:08:00,070 --> 00:07:58,309

well we're not exactly sure that this is

153

00:08:02,469 --> 00:08:00,080

in fact the last space shuttle flight of

154

00:08:04,469 --> 00:08:02,479

atlantis uh if it is though we all

155

00:08:06,469 --> 00:08:04,479

consider it just as important as any of

156

00:08:09,029 --> 00:08:06,479

the other flights this was the 32nd

157

00:08:10,629 --> 00:08:09,039

flight 32nd time that atlantis has

158

00:08:12,309 --> 00:08:10,639

launched into space

159

00:08:13,909 --> 00:08:12,319

and flown around the earth many many

160

00:08:16,390 --> 00:08:13,919

times so we're just another crew to be

161

00:08:18,869 --> 00:08:16,400

lucky enough to be part of that program

162

00:08:25,990 --> 00:08:18,879

and if it's the last flight

163

00:08:32,149 --> 00:08:28,869

my name is charles and i go to john b

164

00:08:34,230 --> 00:08:32,159

carey in richmond virginia my question

165

00:08:40,469 --> 00:08:34,240

is did you like training to be an

166

00:08:43,670 --> 00:08:41,909

yeah well that's a great question

167

00:08:45,190 --> 00:08:43,680

actually training to be an astronaut is

168

00:08:48,230 --> 00:08:45,200

a lot of fun

169

00:08:49,829 --> 00:08:48,240

uh we get to fly airplanes around work

170

00:08:52,790 --> 00:08:49,839

in the simulator

171

00:08:54,470 --> 00:08:52,800

and go to class all the things that you

172

00:08:57,509 --> 00:08:54,480

would learn in school

173

00:08:59,190 --> 00:08:57,519

we've been training uh the sts-132 crew

174

00:09:01,430 --> 00:08:59,200

has been training about eight months so

175

00:09:02,870 --> 00:09:01,440

just about a a school year getting ready

176

00:09:09,509 --> 00:09:02,880

for this mission but

177

00:09:14,389 --> 00:09:12,070

my name is serena anderson and i go to

178

00:09:18,070 --> 00:09:14,399

cumberland middle school in cumberland

179

00:09:19,430 --> 00:09:18,080

wisconsin my question is when you go up

180

00:09:21,190 --> 00:09:19,440

into space

181

00:09:28,870 --> 00:09:21,200

like how much pressure is it and how

182

00:09:33,910 --> 00:09:31,750

right so um here on the space station

183

00:09:35,870 --> 00:09:33,920

the uh the atmospheric pressure in here

184

00:09:38,630 --> 00:09:35,880

is just like sea level

185

00:09:40,710 --> 00:09:38,640

14.7 psi

186

00:09:41,590 --> 00:09:40,720

as far as like during launch we feel a

187

00:09:43,829 --> 00:09:41,600

lot of

188

00:09:46,949 --> 00:09:43,839

forces acceleration as we're going up in

189

00:09:49,190 --> 00:09:46,959

the space shuttle up to three times our

190

00:09:51,030 --> 00:09:49,200

normal body weight so it feels like

191

00:09:53,430 --> 00:09:51,040

there's uh three of your friends

192

00:09:55,269 --> 00:09:53,440

standing on your chest um as you're

193

00:09:56,870 --> 00:09:55,279

launching into space and

194

00:09:58,550 --> 00:09:56,880

sometimes it's a little bit of work just

195

00:10:01,590 --> 00:09:58,560

to raise your uh

196

00:10:03,990 --> 00:10:01,600

chest up to get some air into your lungs

197

00:10:06,470 --> 00:10:04,000

but uh after a couple days here on

198

00:10:14,069 --> 00:10:06,480

on station you really adapt to all this

199

00:10:17,990 --> 00:10:16,230

hi my name is megan and i'm from warren

200

00:10:19,910 --> 00:10:18,000

g hardy middle school in des moines iowa

201  
00:10:21,670 --> 00:10:19,920  
and my question is is how long does it

202  
00:10:27,110 --> 00:10:21,680  
take for

203  
00:10:30,790 --> 00:10:29,509  
now this is a tricky question

204  
00:10:32,630 --> 00:10:30,800  
how long does it take for water for

205  
00:10:34,630 --> 00:10:32,640  
evaporating space if you put some water

206  
00:10:36,230 --> 00:10:34,640  
out of space if you're on the night side

207  
00:10:39,829 --> 00:10:36,240  
of the earth it'll just freeze solid in

208  
00:10:42,310 --> 00:10:39,839  
or like a rock hard iceberg immediately

209  
00:10:45,190 --> 00:10:42,320  
if you're on the

210  
00:10:46,630 --> 00:10:45,200  
on the sun side it'll flash and boil

211  
00:10:48,870 --> 00:10:46,640  
almost immediately and you'll just get

212  
00:10:50,150 --> 00:10:48,880  
water vapor and sometimes there's some

213  
00:10:52,389 --> 00:10:50,160

places where the water doesn't know

214

00:10:54,389 --> 00:10:52,399

whether to freeze or boil and it kind of

215

00:11:01,670 --> 00:10:54,399

does both at the same time

216

00:11:05,110 --> 00:11:03,269

my name is charles wallace and i go to

217

00:11:07,509 --> 00:11:05,120

cairo's middle school in congress

218

00:11:09,590 --> 00:11:07,519

georgia i would like to know

219

00:11:24,310 --> 00:11:09,600

are there any concerns about the closure

220

00:11:28,470 --> 00:11:25,750

well the end of the space shuttle

221

00:11:31,590 --> 00:11:28,480

program is essentially inevitable and

222

00:11:34,310 --> 00:11:31,600

that is because the space shuttle can't

223

00:11:36,389 --> 00:11:34,320

travel outside of low earth orbit and if

224

00:11:39,110 --> 00:11:36,399

we as humans want to

225

00:11:40,230 --> 00:11:39,120

explore deeper into the universe

226

00:11:41,750 --> 00:11:40,240

um

227

00:11:43,590 --> 00:11:41,760

it's starting with maybe the moon moving

228

00:11:45,350 --> 00:11:43,600

on to asteroids and mars

229

00:11:47,910 --> 00:11:45,360

the the space shuttle is not the machine

230

00:11:49,910 --> 00:11:47,920

that can do it so we simply don't have

231

00:11:51,829 --> 00:11:49,920

enough money to continue to operate the

232

00:11:53,990 --> 00:11:51,839

space shuttle and develop a whole new

233

00:11:55,110 --> 00:11:54,000

spacecraft that can go beyond low earth

234

00:11:57,269 --> 00:11:55,120

orbit

235

00:12:00,230 --> 00:11:57,279

so it's a it's a decision of

236

00:12:01,910 --> 00:12:00,240

national will you know if we want to

237

00:12:03,430 --> 00:12:01,920

explore the universe we've got to stop

238

00:12:04,949 --> 00:12:03,440

flying the space shuttle and it's a

239

00:12:10,550 --> 00:12:04,959

simple reality

240

00:12:14,389 --> 00:12:13,110

my name is william

241

00:12:16,389 --> 00:12:14,399

and

242

00:12:19,670 --> 00:12:16,399

in first grade

243

00:12:23,350 --> 00:12:19,680

in forest lake elementary

244

00:12:25,509 --> 00:12:23,360

in columbia south carolina my question

245

00:12:35,350 --> 00:12:25,519

is

246

00:12:38,550 --> 00:12:37,670

hey william uh thanks for asking that

247

00:12:41,030 --> 00:12:38,560

question

248

00:12:42,470 --> 00:12:41,040

um it's a good one uh the reason that

249

00:12:44,069 --> 00:12:42,480

there's not as much you don't feel as

250

00:12:46,629 --> 00:12:44,079

much gravity on the moon

251  
00:12:48,310 --> 00:12:46,639  
is because it's smaller than the earth

252  
00:12:50,870 --> 00:12:48,320  
the amount of gravity that a given

253  
00:12:52,949 --> 00:12:50,880  
planet uh or any anything for that

254  
00:12:55,829 --> 00:12:52,959  
matter poles on everything else

255  
00:12:58,230 --> 00:12:55,839  
ha is uh related to how big it is how

256  
00:13:01,190 --> 00:12:58,240  
much mass it has so the moon has a lot

257  
00:13:03,350 --> 00:13:01,200  
less mass than the earth so there's less

258  
00:13:05,509 --> 00:13:03,360  
gravity and if you go to jupiter which

259  
00:13:08,310 --> 00:13:05,519  
has got a lot more mass than the earth

260  
00:13:10,790 --> 00:13:08,320  
then you'd feel a lot of gravity and

261  
00:13:17,030 --> 00:13:10,800  
you'd feel really really heavy so that's

262  
00:13:21,509 --> 00:13:19,030  
hi my name is michelle i'm a junior

263  
00:13:23,590 --> 00:13:21,519

wendover high my question is what is it

264

00:13:33,269 --> 00:13:23,600

like seeing the sunset or sun rise every

265

00:13:37,910 --> 00:13:34,790

because of the well i'm starting to

266

00:13:41,030 --> 00:13:39,189

no because you get to go around the

267

00:13:43,269 --> 00:13:41,040

earth every 90 minutes or so you

268

00:13:45,350 --> 00:13:43,279

naturally see a sunset in the sunrise

269

00:13:46,949 --> 00:13:45,360

every 90 minutes and it's really amazing

270

00:13:48,790 --> 00:13:46,959

because you get to watch

271

00:13:50,470 --> 00:13:48,800

you know the earth below you both at

272

00:13:51,590 --> 00:13:50,480

night and during the day in just an hour

273

00:13:53,430 --> 00:13:51,600

and a half

274

00:13:54,710 --> 00:13:53,440

which is really really exciting the

275

00:13:55,750 --> 00:13:54,720

problem becomes when you're trying to go

276

00:13:57,110 --> 00:13:55,760

to sleep

277

00:13:58,550 --> 00:13:57,120

for some people

278

00:14:00,550 --> 00:13:58,560

because you have to have to shut the

279

00:14:01,670 --> 00:14:00,560

windows and seal yourself off inside and

280

00:14:02,710 --> 00:14:01,680

turn out the lights because otherwise

281

00:14:04,629 --> 00:14:02,720

you'd have the light coming through the

282

00:14:08,310 --> 00:14:04,639

windows every 45 minutes and that might

283

00:14:12,870 --> 00:14:10,949

oh outside oh going outside is eva

284

00:14:14,470 --> 00:14:12,880

that's a lot more fun because you're not

285

00:14:17,110 --> 00:14:14,480

constrained by the windows and you have

286

00:14:18,069 --> 00:14:17,120

the opportunity to look down and see the

287

00:14:19,910 --> 00:14:18,079

earth

288

00:14:21,670 --> 00:14:19,920

pass below your feet

289

00:14:23,910 --> 00:14:21,680

in darkness and in light and it's

290

00:14:25,269 --> 00:14:23,920

amazing what you can see at night uh not

291

00:14:27,590 --> 00:14:25,279

on this mission on a previous mission i

292

00:14:29,269 --> 00:14:27,600

saw a meteorite pass below me into the

293

00:14:32,629 --> 00:14:29,279

atmosphere and glow and that was pretty

294

00:14:34,550 --> 00:14:32,639

amazing lightning storms the aurora we

295

00:14:36,550 --> 00:14:34,560

saw the other day all sorts of amazing

296

00:14:38,230 --> 00:14:36,560

things you get to see outside at night

297

00:14:42,870 --> 00:14:38,240

that you don't necessarily think of you

298

00:14:45,670 --> 00:14:44,310

let me just add something to that real

299

00:14:47,509 --> 00:14:45,680

quick the other interesting thing about

300

00:14:50,150 --> 00:14:47,519

sunrises and sunsets up here though is

301  
00:14:51,590 --> 00:14:50,160  
that they happen really fast so it's not

302  
00:14:53,590 --> 00:14:51,600  
like at home when you're sitting on the

303  
00:14:55,990 --> 00:14:53,600  
beach and just enjoying the sunset go

304  
00:14:57,990 --> 00:14:56,000  
down into the ocean very slowly here it

305  
00:14:59,590 --> 00:14:58,000  
just happens uh so fast because we're

306  
00:15:00,710 --> 00:14:59,600  
traveling around the world so fast so

307  
00:15:01,670 --> 00:15:00,720  
you're out there and you're looking at

308  
00:15:04,150 --> 00:15:01,680  
the sun

309  
00:15:13,030 --> 00:15:04,160  
and it's bright bright bright bright

310  
00:15:17,030 --> 00:15:14,870  
hi my name is helena i'm a fourth grader

311  
00:15:19,829 --> 00:15:17,040  
in holland in texas in comparison to

312  
00:15:21,670 --> 00:15:19,839  
plant life on earth do the plants grown

313  
00:15:26,870 --> 00:15:21,680

on the international space station grow

314

00:15:29,829 --> 00:15:28,710

selena that's a really uh mature

315

00:15:31,509 --> 00:15:29,839

question and

316

00:15:34,069 --> 00:15:31,519

you're ahead of your time the space

317

00:15:36,230 --> 00:15:34,079

station uh science

318

00:15:39,430 --> 00:15:36,240

on board here really is looking at that

319

00:15:41,509 --> 00:15:39,440

very question itself we're looking at

320

00:15:43,509 --> 00:15:41,519

arabidopsis seeds and trying to

321

00:15:46,629 --> 00:15:43,519

understand because we see that the roots

322

00:15:48,470 --> 00:15:46,639

grow in a different way here on orbit

323

00:15:50,310 --> 00:15:48,480

with the lack of gravity than they do on

324

00:15:52,949 --> 00:15:50,320

earth and we're hoping that that will

325

00:15:55,590 --> 00:15:52,959

help us to understand plant growth on

326

00:15:56,710 --> 00:15:55,600

earth a little better so i can tell you

327

00:15:58,310 --> 00:15:56,720

that

328

00:15:59,829 --> 00:15:58,320

they do grow a little differently but

329

00:16:01,590 --> 00:15:59,839

how that's something that we're studying

330

00:16:03,670 --> 00:16:01,600

right now it's kind of interesting to

331

00:16:04,949 --> 00:16:03,680

see plants growing up here in the space

332

00:16:10,550 --> 00:16:04,959

station

333

00:16:14,389 --> 00:16:12,230

my name is jackie black and i go to

334

00:16:16,870 --> 00:16:14,399

arapahoe middle school in

335

00:16:19,110 --> 00:16:16,880

arapahoe wyoming my question is do you

336

00:16:27,910 --> 00:16:19,120

take any medication for the function of

337

00:16:33,749 --> 00:16:30,710

actually i'd have to say no we don't

338

00:16:36,629 --> 00:16:33,759

take any medications uh that i know of

339

00:16:39,590 --> 00:16:36,639

but we are trying to understand

340

00:16:41,990 --> 00:16:39,600

better how to preserve bone mass up here

341

00:16:42,949 --> 00:16:42,000

on orbit for long duration and so one of

342

00:16:44,150 --> 00:16:42,959

the

343

00:16:47,030 --> 00:16:44,160

ways that we

344

00:16:49,829 --> 00:16:47,040

counteract the effect of gravity or the

345

00:16:52,230 --> 00:16:49,839

lack of gravity here on orbit is to do

346

00:16:54,790 --> 00:16:52,240

exercise we find that the more exercise

347

00:16:57,509 --> 00:16:54,800

we do before we launch into space as

348

00:16:58,710 --> 00:16:57,519

well as while we're on orbit helps to

349

00:17:00,550 --> 00:16:58,720

maintain

350

00:17:02,790 --> 00:17:00,560

our bone mass which is extremely

351

00:17:04,710 --> 00:17:02,800

important and we're trying to study that

352

00:17:06,069 --> 00:17:04,720

right now to see how much we need to do

353

00:17:08,549 --> 00:17:06,079

and for

354

00:17:11,110 --> 00:17:08,559

how frequent we need to do that in order

355

00:17:13,350 --> 00:17:11,120

to maintain and possibly even grow

356

00:17:15,270 --> 00:17:13,360

stronger bones on orbit and that will

357

00:17:16,069 --> 00:17:15,280

also help us to understand our own bone

358

00:17:18,309 --> 00:17:16,079

growth

359

00:17:24,710 --> 00:17:18,319

back at home on earth great questions

360

00:17:33,110 --> 00:17:27,829

atlantis iss this is houston acr thank

361

00:17:36,549 --> 00:17:34,710

thank you atlanta station and nasa

362

00:17:37,990 --> 00:17:36,559

explorer schools