



1
00:00:04,789 --> 00:00:02,629
okay station this is houston are you

2
00:00:06,789 --> 00:00:04,799
guys ready for the event station houston

3
00:00:09,430 --> 00:00:06,799
are you guys ready for the event

4
00:00:11,270 --> 00:00:09,440
stations ready for the event

5
00:00:13,110 --> 00:00:11,280
putnam museum of history and natural

6
00:00:14,629 --> 00:00:13,120
science this is mission control houston

7
00:00:17,670 --> 00:00:14,639
please call station for a voice check

8
00:00:25,670 --> 00:00:19,910
this is kim finley here with students at

9
00:00:29,429 --> 00:00:28,070
hey kim and putnam we hear you loud and

10
00:00:35,430 --> 00:00:29,439
clear aboard the international space

11
00:00:35,440 --> 00:00:38,950
we're excited

12
00:00:48,229 --> 00:00:41,270
hope has a question for you

13
00:00:51,110 --> 00:00:49,510

well that's a

14

00:00:52,549 --> 00:00:51,120

great question was i scared to go into

15

00:00:54,709 --> 00:00:52,559

space you know astronauts we don't

16

00:00:56,310 --> 00:00:54,719

really like to use the word scared but

17

00:00:57,910 --> 00:00:56,320

of course on the day of launch and the

18

00:01:00,310 --> 00:00:57,920

day of landing and everything there's a

19

00:01:02,069 --> 00:01:00,320

lot of dynamics going on so we're

20

00:01:03,990 --> 00:01:02,079

concerned i think we're just a little

21

00:01:05,670 --> 00:01:04,000

bit scared and we really pay attention

22

00:01:07,910 --> 00:01:05,680

to what's going on but we think it's

23

00:01:09,910 --> 00:01:07,920

really important that what that

24

00:01:11,350 --> 00:01:09,920

that we get up here to space and of

25

00:01:12,950 --> 00:01:11,360

course that we come home safely and

26

00:01:14,310 --> 00:01:12,960

everything so in those big days we're

27

00:01:16,870 --> 00:01:14,320

concerned we pay a lot of extra

28

00:01:18,390 --> 00:01:16,880

attention and a little bit scared just

29

00:01:20,789 --> 00:01:18,400

like everybody gets a little bit scared

30

00:01:24,630 --> 00:01:20,799

sometimes but it's all for a good cause

31

00:01:24,640 --> 00:01:28,469

now tabitha has a question

32

00:01:35,190 --> 00:01:31,510

what made you to live and work on the i

33

00:01:44,870 --> 00:01:35,200

mean yeah i'm right ss and are you happy

34

00:01:49,030 --> 00:01:46,950

hi tabitha i'm very happy to be an

35

00:01:51,910 --> 00:01:49,040

astronaut being an astronaut it's a lot

36

00:01:54,310 --> 00:01:51,920

of fun because you get to do lots of fun

37

00:01:56,069 --> 00:01:54,320

things you get to float around in space

38

00:01:58,789 --> 00:01:56,079

but mostly because you get to work with

39

00:02:00,950 --> 00:01:58,799

such great people i spent a lot of years

40

00:02:03,510 --> 00:02:00,960

training even just for this mission up

41

00:02:07,350 --> 00:02:03,520

here on the space station and so during

42

00:02:09,190 --> 00:02:07,360

that time you get to fly jets you get to

43

00:02:10,550 --> 00:02:09,200

practice space walks in a big deep

44

00:02:12,309 --> 00:02:10,560

swimming pool

45

00:02:13,990 --> 00:02:12,319

but mostly you get to work with great

46

00:02:15,830 --> 00:02:14,000

people who are very smart and who love

47

00:02:20,550 --> 00:02:15,840

what they what they do and there's

48

00:02:25,830 --> 00:02:21,910

thank you we have a question from

49

00:02:30,550 --> 00:02:28,070

are there any mental challenges to being

50

00:02:36,070 --> 00:02:30,560

so isolated and do you ever feel

51
00:02:40,710 --> 00:02:38,470
well that's a great question too uh

52
00:02:42,949 --> 00:02:40,720
we we are isolated we only get to see

53
00:02:44,630 --> 00:02:42,959
each other for months at a time and we

54
00:02:47,110 --> 00:02:44,640
don't really get to see other faces

55
00:02:48,550 --> 00:02:47,120
every day uh we do feel close to the

56
00:02:50,390 --> 00:02:48,560
people we're working with in mission

57
00:02:52,470 --> 00:02:50,400
control and everything so you know we

58
00:02:53,990 --> 00:02:52,480
have good communication with earth but

59
00:02:56,309 --> 00:02:54,000
of course we know we can't come home

60
00:02:57,990 --> 00:02:56,319
instantly anytime we want to so we're in

61
00:03:01,030 --> 00:02:58,000
a special place and you kind of have to

62
00:03:03,030 --> 00:03:01,040
deal with that a little bit mentally

63
00:03:04,710 --> 00:03:03,040

i think everybody too

64

00:03:06,229 --> 00:03:04,720

like like we get a little scared once in

65

00:03:09,030 --> 00:03:06,239

a while if you put us in just the right

66

00:03:11,350 --> 00:03:09,040

places you kind of have to learn to

67

00:03:13,350 --> 00:03:11,360

accept your environment and we we have

68

00:03:15,589 --> 00:03:13,360

to fly in a tiny capsule sometimes when

69

00:03:17,430 --> 00:03:15,599

we get in suits where they're a little

70

00:03:19,270 --> 00:03:17,440

bit tight and that sort of thing but you

71

00:03:20,710 --> 00:03:19,280

kind of learn little techniques to deal

72

00:03:23,430 --> 00:03:20,720

with that you just kind of put yourself

73

00:03:25,910 --> 00:03:23,440

in a happy place and and just

74

00:03:28,070 --> 00:03:25,920

just enjoy the the moment you're in

75

00:03:29,750 --> 00:03:28,080

kind of so you can get kind of get

76

00:03:31,350 --> 00:03:29,760

through those things if you if you work

77

00:03:33,589 --> 00:03:31,360

through them

78

00:03:36,630 --> 00:03:33,599

and and just just meet the challenge i

79

00:03:36,640 --> 00:03:41,509

and next a question from hate zeus

80

00:03:47,670 --> 00:03:43,509

what happens if someone gets hurt or

81

00:03:52,309 --> 00:03:49,990

hi jesus well that's a good question we

82

00:03:53,990 --> 00:03:52,319

think about that quite a bit

83

00:03:56,070 --> 00:03:54,000

uh i happen to be a doctor but we don't

84

00:03:57,910 --> 00:03:56,080

have a doctor on every flight but we do

85

00:04:00,390 --> 00:03:57,920

always have two people trained to be

86

00:04:01,830 --> 00:04:00,400

medical officers is what we call them so

87

00:04:03,429 --> 00:04:01,840

there's always somebody ready to take

88

00:04:05,670 --> 00:04:03,439

care has some training to take care of

89

00:04:07,750 --> 00:04:05,680

someone if they get sick or hurt so what

90

00:04:09,270 --> 00:04:07,760

we have is a lot of equipment that will

91

00:04:11,270 --> 00:04:09,280

take care of first aid it could take

92

00:04:12,550 --> 00:04:11,280

care of you if you get really sick and

93

00:04:14,949 --> 00:04:12,560

need even

94

00:04:17,189 --> 00:04:14,959

medicine in your vein that sort of thing

95

00:04:18,870 --> 00:04:17,199

but if you get really sick and you

96

00:04:21,030 --> 00:04:18,880

really have to be in a hospital or

97

00:04:23,430 --> 00:04:21,040

otherwise you might die then in that

98

00:04:25,670 --> 00:04:23,440

case we always have our soyuz spaceship

99

00:04:27,270 --> 00:04:25,680

which is our it is our normal ride home

100

00:04:29,270 --> 00:04:27,280

but it's also our ambulance in case

101
00:04:31,909 --> 00:04:29,280
something really goes bad so we could

102
00:04:36,870 --> 00:04:31,919
get home within a day if we really had

103
00:04:42,950 --> 00:04:38,390
thank you now we have a question from

104
00:04:46,629 --> 00:04:45,510
what is it like to

105
00:04:52,790 --> 00:04:46,639
what is it

106
00:04:56,070 --> 00:04:54,390
well that's a great question that's kind

107
00:04:58,230 --> 00:04:56,080
of like my favorite part of the whole

108
00:05:00,150 --> 00:04:58,240
space flight this is fun up here too but

109
00:05:01,590 --> 00:05:00,160
launching on a rocket is a very special

110
00:05:03,670 --> 00:05:01,600
experience

111
00:05:06,150 --> 00:05:03,680
i've gotten to fly a space shuttle and a

112
00:05:08,629 --> 00:05:06,160
soyuz rocket and in both cases you kind

113
00:05:10,629 --> 00:05:08,639

of strap in you're lying on your back

114

00:05:12,950 --> 00:05:10,639

and you have to get in several hours

115

00:05:15,350 --> 00:05:12,960

ahead of time you're in a space suit and

116

00:05:17,430 --> 00:05:15,360

there's lots of pre-launch preparations

117

00:05:19,189 --> 00:05:17,440

that you have to do but there's always a

118

00:05:20,950 --> 00:05:19,199

countdown clock too and finally when the

119

00:05:23,350 --> 00:05:20,960

moment arrives when you launch a lot of

120

00:05:24,950 --> 00:05:23,360

vibration and there's no doubt about it

121

00:05:27,670 --> 00:05:24,960

that something special is happening with

122

00:05:30,070 --> 00:05:27,680

that rocket and you uh you feel a lot of

123

00:05:31,990 --> 00:05:30,080

shaking you can kind of sense the noise

124

00:05:34,230 --> 00:05:32,000

you can sense that you're really going

125

00:05:36,310 --> 00:05:34,240

through the air fast for a while and the

126
00:05:39,029 --> 00:05:36,320
rocket just pushes and pushes on you so

127
00:05:40,870 --> 00:05:39,039
it's really like pushing accelerating in

128
00:05:42,790 --> 00:05:40,880
a car or something really fast for a

129
00:05:44,230 --> 00:05:42,800
really long time and it takes about nine

130
00:05:46,469 --> 00:05:44,240
minutes of that pushing and then we're

131
00:05:48,070 --> 00:05:46,479
in space so it's quite a quite a neat

132
00:05:49,909 --> 00:05:48,080
experience and there's some booms and

133
00:05:51,430 --> 00:05:49,919
bangs along the way too just to make it

134
00:05:53,909 --> 00:05:51,440
a little bit more exciting as pieces of

135
00:05:55,350 --> 00:05:53,919
the rocket come off so it's it's about

136
00:05:59,670 --> 00:05:55,360
the most exciting thing i think i'll

137
00:05:59,680 --> 00:06:03,909
now a question from joey

138
00:06:09,350 --> 00:06:05,909

do you get to just relax and float

139

00:06:18,070 --> 00:06:09,360

around sometimes and is it hard to just

140

00:06:21,830 --> 00:06:19,270

kevin's gonna our commander commander's

141

00:06:23,590 --> 00:06:21,840

gonna demonstrate here floating around

142

00:06:25,909 --> 00:06:23,600

i always say that floating around in

143

00:06:27,510 --> 00:06:25,919

zero gravity makes all the hard work

144

00:06:29,510 --> 00:06:27,520

really easy but it makes a lot of the

145

00:06:31,510 --> 00:06:29,520

easy work really hard

146

00:06:33,350 --> 00:06:31,520

so you can imagine if you have to move a

147

00:06:36,390 --> 00:06:33,360

big box full of equipment that might

148

00:06:37,749 --> 00:06:36,400

weigh 50 60 100 pounds up here in space

149

00:06:39,990 --> 00:06:37,759

it's not that hard just give it a little

150

00:06:41,350 --> 00:06:40,000

push and over time you can push it and

151
00:06:43,749 --> 00:06:41,360
move it along

152
00:06:45,110 --> 00:06:43,759
but it's really hard to find a place to

153
00:06:47,110 --> 00:06:45,120
put your pencil

154
00:06:49,270 --> 00:06:47,120
and we spent a lot of time figuring out

155
00:06:50,870 --> 00:06:49,280
how to put our things so they're

156
00:06:53,589 --> 00:06:50,880
organized so they don't float away and

157
00:06:55,110 --> 00:06:53,599
they don't get lost and what's also neat

158
00:06:57,350 --> 00:06:55,120
after being here for a little over a

159
00:06:59,350 --> 00:06:57,360
month now is that my feet are starting

160
00:07:01,350 --> 00:06:59,360
to be like my hands my feet are good at

161
00:07:03,110 --> 00:07:01,360
grabbing handrails like they're doing

162
00:07:04,870 --> 00:07:03,120
right now i don't even have to think

163
00:07:06,710 --> 00:07:04,880

about it and my hands are becoming kind

164

00:07:08,629 --> 00:07:06,720

of like my feet i

165

00:07:10,870 --> 00:07:08,639

move around with my hands a lot more

166

00:07:15,990 --> 00:07:10,880

than i ever did on the earth

167

00:07:16,000 --> 00:07:20,309

right now we have a question from texas

168

00:07:27,430 --> 00:07:22,230

how long can someone stay on the space

169

00:07:31,350 --> 00:07:29,430

well you know they probably could stay

170

00:07:32,550 --> 00:07:31,360

here for years and years and years i

171

00:07:34,070 --> 00:07:32,560

don't know if

172

00:07:35,749 --> 00:07:34,080

people would want to because we really

173

00:07:37,589 --> 00:07:35,759

miss earth also when we're up here we

174

00:07:38,870 --> 00:07:37,599

love being in space but we really really

175

00:07:40,309 --> 00:07:38,880

miss earth

176

00:07:41,670 --> 00:07:40,319

we're going to stay

177

00:07:43,189 --> 00:07:41,680

i'm going to stay about four and a half

178

00:07:46,469 --> 00:07:43,199

months i think tom's going to be up here

179

00:07:48,469 --> 00:07:46,479

maybe around five or so and uh in a few

180

00:07:49,830 --> 00:07:48,479

years we have some an astronaut and a

181

00:07:52,390 --> 00:07:49,840

cosmonaut who are going to come stay for

182

00:07:54,390 --> 00:07:52,400

an entire year so that'll be a real test

183

00:07:56,710 --> 00:07:54,400

i think for them physically and mentally

184

00:07:58,469 --> 00:07:56,720

because it's different being up here

185

00:08:00,950 --> 00:07:58,479

because you don't walk you have to do a

186

00:08:02,309 --> 00:08:00,960

lot of special exercises and you know

187

00:08:04,150 --> 00:08:02,319

it's a little extra effort with

188

00:08:05,749 --> 00:08:04,160

communications and like you guys

189

00:08:08,629 --> 00:08:05,759

mentioned a little bit earlier the

190

00:08:10,390 --> 00:08:08,639

isolation and stuff so i think a year is

191

00:08:12,790 --> 00:08:10,400

probably about as long as really anybody

192

00:08:14,790 --> 00:08:12,800

would want to stay at the moment but

193

00:08:16,869 --> 00:08:14,800

we'll have volunteers to stay longer and

194

00:08:18,790 --> 00:08:16,879

someday people will live in space even

195

00:08:20,150 --> 00:08:18,800

longer than that so but for me i think

196

00:08:24,469 --> 00:08:20,160

five months is going to be just a really

197

00:08:24,479 --> 00:08:29,270

next we have a question from javier

198

00:08:29,280 --> 00:08:42,149

how do you prepare for living in space

199

00:08:47,509 --> 00:08:43,509

kim could you help us out we didn't

200

00:08:55,509 --> 00:08:50,389

our question was how did you prepare for

201

00:09:00,949 --> 00:08:57,990

javier that's a great question

202

00:09:03,509 --> 00:09:00,959

uh the way we were prepared and both

203

00:09:06,389 --> 00:09:03,519

kevin and myself and our other crewmates

204

00:09:08,389 --> 00:09:06,399

was starting at about your age right now

205

00:09:10,230 --> 00:09:08,399

we started

206

00:09:12,230 --> 00:09:10,240

to work hard in school

207

00:09:13,430 --> 00:09:12,240

for myself i love to read i'm very

208

00:09:15,430 --> 00:09:13,440

curious

209

00:09:17,030 --> 00:09:15,440

and so we really began preparation at

210

00:09:18,710 --> 00:09:17,040

about your age

211

00:09:20,710 --> 00:09:18,720

now as you get older you start to think

212

00:09:23,030 --> 00:09:20,720

what do you want to be when you grow up

213

00:09:25,190 --> 00:09:23,040

if it's a technical field or any field

214

00:09:27,190 --> 00:09:25,200

at all really because who knows what the

215

00:09:28,550 --> 00:09:27,200

future astronauts are going to be like

216

00:09:30,550 --> 00:09:28,560

then you pick a field that you want to

217

00:09:32,470 --> 00:09:30,560

go into and you fall in love with it and

218

00:09:34,710 --> 00:09:32,480

then you'll be really good at it if you

219

00:09:36,710 --> 00:09:34,720

love it so i got ready for this flight

220

00:09:38,389 --> 00:09:36,720

really when i was your age then when i

221

00:09:39,990 --> 00:09:38,399

became an astronaut a couple years more

222

00:09:42,070 --> 00:09:40,000

of training and then two more years of

223

00:09:43,750 --> 00:09:42,080

training just for this flight but you

224

00:09:45,509 --> 00:09:43,760

know what we love it we love the

225

00:09:49,670 --> 00:09:45,519

training the whole time so it's really

226

00:09:54,230 --> 00:09:51,750

thank you now we have a question from

227

00:09:55,750 --> 00:09:54,240

cadence

228

00:09:59,509 --> 00:09:55,760

what

229

00:10:00,389 --> 00:09:59,519

things have you seen from

230

00:10:13,750 --> 00:10:00,399

the

231

00:10:13,760 --> 00:10:17,509

yes it was

232

00:10:21,829 --> 00:10:20,310

uh okay that's a great question

233

00:10:24,870 --> 00:10:21,839

we can see

234

00:10:26,550 --> 00:10:24,880

the earth like a big ball out the window

235

00:10:28,710 --> 00:10:26,560

it's one of our favorite things to do

236

00:10:29,430 --> 00:10:28,720

the windows are very popular places to

237

00:10:31,030 --> 00:10:29,440

be

238

00:10:32,550 --> 00:10:31,040

and we go around the world earth once

239

00:10:34,870 --> 00:10:32,560

every 90 minutes

240

00:10:37,430 --> 00:10:34,880

so as we go around the earth we can see

241

00:10:40,470 --> 00:10:37,440

the oceans we can see the continents

242

00:10:42,870 --> 00:10:40,480

we can see a lot of clouds sometimes we

243

00:10:44,550 --> 00:10:42,880

can see icebergs and islands

244

00:10:47,670 --> 00:10:44,560

we can see

245

00:10:49,110 --> 00:10:47,680

lines of uh contrails from aircraft

246

00:10:51,829 --> 00:10:49,120

flying below us

247

00:10:52,870 --> 00:10:51,839

and uh we can see cities at night all

248

00:10:54,949 --> 00:10:52,880

lit up

249

00:10:56,790 --> 00:10:54,959

we can also see the stars and the the

250

00:10:58,630 --> 00:10:56,800

night sky and they don't twinkle for us

251
00:11:00,310 --> 00:10:58,640
out here because they're not they're not

252
00:11:02,310 --> 00:11:00,320
coming through air in the atmosphere so

253
00:11:03,990 --> 00:11:02,320
they're just nice bright

254
00:11:05,590 --> 00:11:04,000
stars and then of course we can see the

255
00:11:08,150 --> 00:11:05,600
sun and the moon just like you can on

256
00:11:09,829 --> 00:11:08,160
earth so we see the same kinds of things

257
00:11:12,069 --> 00:11:09,839
you do but we get to see the earth on

258
00:11:14,230 --> 00:11:12,079
just a little bit grander scale and it's

259
00:11:15,829 --> 00:11:14,240
a it's really a beautiful view we send

260
00:11:17,829 --> 00:11:15,839
down a lot of photography and i hope

261
00:11:20,790 --> 00:11:17,839
some of you get to see it it's a special

262
00:11:26,150 --> 00:11:22,389
thank you now we have a question from

263
00:11:35,350 --> 00:11:28,630

what is your favorite part of living in

264

00:11:39,509 --> 00:11:37,430

that is a very hard question to answer

265

00:11:40,870 --> 00:11:39,519

because so much of it is exciting and

266

00:11:43,590 --> 00:11:40,880

fun

267

00:11:45,670 --> 00:11:43,600

i'd have to say though uh the two things

268

00:11:47,590 --> 00:11:45,680

living in zero gravity

269

00:11:49,590 --> 00:11:47,600

and looking out the window as kevin

270

00:11:51,829 --> 00:11:49,600

described looking out of the window

271

00:11:53,670 --> 00:11:51,839

never gets old it's always exciting

272

00:11:55,910 --> 00:11:53,680

we're always looking for a minute or two

273

00:11:57,990 --> 00:11:55,920

to where we can fly over to the window

274

00:12:00,790 --> 00:11:58,000

and look outside because it's a

275

00:12:02,710 --> 00:12:00,800

perspective that so few people get

276

00:12:04,310 --> 00:12:02,720

and really changes

277

00:12:06,710 --> 00:12:04,320

the way you look at the world and the

278

00:12:08,310 --> 00:12:06,720

way you look at your fellow

279

00:12:13,190 --> 00:12:08,320

mankind around you

280

00:12:16,069 --> 00:12:14,790

thank you now we have a question from

281

00:12:19,430 --> 00:12:16,079

anna

282

00:12:25,190 --> 00:12:19,440

how do you communicate with

283

00:12:31,190 --> 00:12:28,790

well you know uh we have a telephone

284

00:12:33,190 --> 00:12:31,200

that goes through the computer system so

285

00:12:35,030 --> 00:12:33,200

we can actually make calls to our family

286

00:12:37,990 --> 00:12:35,040

and friends if we want to

287

00:12:39,750 --> 00:12:38,000

we have email systems too so that we can

288

00:12:42,069 --> 00:12:39,760

write letters to them

289

00:12:43,030 --> 00:12:42,079

and then they get down to them back and

290

00:12:45,750 --> 00:12:43,040

forth

291

00:12:46,550 --> 00:12:45,760

sometimes uh nasa takes good care of us

292

00:12:48,790 --> 00:12:46,560

by

293

00:12:51,110 --> 00:12:48,800

sending up maybe some videos or some

294

00:12:53,350 --> 00:12:51,120

photos that our family and friends send

295

00:12:56,389 --> 00:12:53,360

up specially for us to kind of entertain

296

00:12:58,629 --> 00:12:56,399

us during our long stays on board so

297

00:13:00,550 --> 00:12:58,639

that's that's really fun and then once a

298

00:13:03,670 --> 00:13:00,560

week we get kind of a special treat

299

00:13:05,829 --> 00:13:03,680

where uh they they set us up with a

300

00:13:08,389 --> 00:13:05,839

video conference and we go to a computer

301
00:13:10,389 --> 00:13:08,399
and it has a camera built into it and we

302
00:13:13,190 --> 00:13:10,399
can see our family or friends on the

303
00:13:15,990 --> 00:13:13,200
monitor and have maybe a half an hour or

304
00:13:17,590 --> 00:13:16,000
45 minute conversation with our family

305
00:13:19,829 --> 00:13:17,600
and friends on earth we get to see them

306
00:13:21,590 --> 00:13:19,839
and they get to see us almost with no

307
00:13:24,949 --> 00:13:21,600
delay so it's really nice a way to

308
00:13:35,110 --> 00:13:28,150
here's a question from aaron

309
00:13:40,389 --> 00:13:37,829
well aaron it's exercise is very very

310
00:13:42,470 --> 00:13:40,399
important up here you might know that if

311
00:13:45,269 --> 00:13:42,480
we didn't exercise our bones and our

312
00:13:47,189 --> 00:13:45,279
muscles would waste away because right

313
00:13:48,550 --> 00:13:47,199

now we're not even exercising even

314

00:13:50,150 --> 00:13:48,560

though it may look like we're sort of

315

00:13:52,629 --> 00:13:50,160

standing here our muscles are almost

316

00:13:55,110 --> 00:13:52,639

completely relaxed so we have a

317

00:13:56,790 --> 00:13:55,120

treadmill and we have bungees that hold

318

00:13:58,150 --> 00:13:56,800

us down to the treadmill so it we can

319

00:14:00,230 --> 00:13:58,160

almost

320

00:14:02,470 --> 00:14:00,240

act like we're walking and our leg

321

00:14:04,870 --> 00:14:02,480

muscles feel like they're walking and we

322

00:14:07,110 --> 00:14:04,880

can also

323

00:14:08,949 --> 00:14:07,120

ride on a bicycle it gives us some

324

00:14:10,470 --> 00:14:08,959

resistance so it's at times it feels

325

00:14:12,069 --> 00:14:10,480

like we're just coasting along the road

326

00:14:13,829 --> 00:14:12,079

sometimes it feels like we're riding up

327

00:14:15,269 --> 00:14:13,839

a very steep hill and that's a good

328

00:14:17,910 --> 00:14:15,279

workout

329

00:14:20,949 --> 00:14:17,920

and then i think my favorite machine is

330

00:14:23,110 --> 00:14:20,959

the resistance exercise machine and

331

00:14:25,509 --> 00:14:23,120

that's like lifting weights

332

00:14:27,030 --> 00:14:25,519

and it helps keep our muscles strong and

333

00:14:29,030 --> 00:14:27,040

you can do everything from squats to

334

00:14:30,389 --> 00:14:29,040

bench press that sort of thing so i

335

00:14:32,069 --> 00:14:30,399

think they've got that all figured out

336

00:14:37,110 --> 00:14:32,079

really well we've got a lot of great

337

00:14:42,389 --> 00:14:38,629

thank you now we have a question from

338

00:14:49,910 --> 00:14:44,470

what is the hardest thing about being in

339

00:14:54,550 --> 00:14:52,310

well you know i think we work pretty

340

00:14:56,310 --> 00:14:54,560

hard up here we we stay very busy

341

00:14:58,069 --> 00:14:56,320

because there's just a few of us up here

342

00:15:00,629 --> 00:14:58,079

and there are a lot of scientists on the

343

00:15:02,550 --> 00:15:00,639

planet who have a lot of great ideas for

344

00:15:03,750 --> 00:15:02,560

things you can do in microgravity things

345

00:15:05,350 --> 00:15:03,760

you can do with the space station

346

00:15:07,829 --> 00:15:05,360

looking towards space

347

00:15:09,829 --> 00:15:07,839

and looking towards earth so it's a very

348

00:15:12,470 --> 00:15:09,839

very valuable place to be and we're very

349

00:15:14,870 --> 00:15:12,480

busy hundreds of experiments going on uh

350

00:15:16,870 --> 00:15:14,880

on the space station uh kind of at a

351
00:15:19,030 --> 00:15:16,880
time we're not involved with all those

352
00:15:20,949 --> 00:15:19,040
every day but we're still helping with

353
00:15:22,150 --> 00:15:20,959
many of them every day so we stay very

354
00:15:24,150 --> 00:15:22,160
busy

355
00:15:26,710 --> 00:15:24,160
also it's kind of a confusing place to

356
00:15:28,790 --> 00:15:26,720
live because we have things on the

357
00:15:31,110 --> 00:15:28,800
floors like refrigerators and we have

358
00:15:33,350 --> 00:15:31,120
science racks on our ceiling and every

359
00:15:35,910 --> 00:15:33,360
wall kind of looks the same and every

360
00:15:38,790 --> 00:15:35,920
wall is very busy and it's very easy to

361
00:15:41,350 --> 00:15:38,800
get confused about which way things

362
00:15:43,910 --> 00:15:41,360
are should be oriented and lose track of

363
00:15:45,670 --> 00:15:43,920

things if you uh if you let go of

364

00:15:47,110 --> 00:15:45,680

something it will sneak away from you

365

00:15:49,030 --> 00:15:47,120

because the ventilation will carry it

366

00:15:51,030 --> 00:15:49,040

away very quietly so it's kind of easy

367

00:15:52,790 --> 00:15:51,040

to lose things up here everything has to

368

00:15:54,310 --> 00:15:52,800

be tied down with velcro or put on a

369

00:15:56,470 --> 00:15:54,320

hook or something so that that makes

370

00:15:58,550 --> 00:15:56,480

life a little bit difficult just things

371

00:16:00,470 --> 00:15:58,560

like eating your food and sleeping in

372

00:16:01,990 --> 00:16:00,480

zero gravity are a little bit different

373

00:16:06,550 --> 00:16:02,000

so i think that's probably the most

374

00:16:16,470 --> 00:16:09,590

here's a question from danny

375

00:16:21,910 --> 00:16:19,590

does it snow in space and it does not

376

00:16:24,389 --> 00:16:21,920

snow in space and the reason why is

377

00:16:26,389 --> 00:16:24,399

because there's no atmosphere up here

378

00:16:27,670 --> 00:16:26,399

if you had

379

00:16:29,509 --> 00:16:27,680

a little bit of moisture out in the

380

00:16:32,629 --> 00:16:29,519

vacuum of space it would very quickly

381

00:16:34,710 --> 00:16:32,639

turn to ice and then what we say as we

382

00:16:37,910 --> 00:16:34,720

say sublimate away and turn into a gas

383

00:16:40,629 --> 00:16:37,920

very quickly so uh nope we're above the

384

00:16:42,310 --> 00:16:40,639

weather we're about 250 miles up so

385

00:16:46,150 --> 00:16:42,320

we're way above the atmosphere where all

386

00:16:51,509 --> 00:16:49,110

question from alexis

387

00:16:59,509 --> 00:16:51,519

what are some jobs or tasks that you do

388

00:17:05,110 --> 00:17:01,189

i'm sorry what could you could you just

389

00:17:06,710 --> 00:17:05,120

repeat that one more time for us

390

00:17:08,710 --> 00:17:06,720

we are wondering what are some of the

391

00:17:11,990 --> 00:17:08,720

jobs that you do aboard the space

392

00:17:16,309 --> 00:17:13,990

oh that that's really a great question

393

00:17:18,069 --> 00:17:16,319

we have many different kinds of jobs so

394

00:17:19,669 --> 00:17:18,079

one of them is we just have to take care

395

00:17:22,630 --> 00:17:19,679

of the space station

396

00:17:24,230 --> 00:17:22,640

we have many many systems that we have

397

00:17:30,390 --> 00:17:24,240

to provide

398

00:17:33,110 --> 00:17:30,400

services like we have a space toilet

399

00:17:35,190 --> 00:17:33,120

that we take care of very very carefully

400

00:17:36,150 --> 00:17:35,200

and communication systems that we take

401
00:17:37,430 --> 00:17:36,160
care of

402
00:17:39,909 --> 00:17:37,440
and

403
00:17:41,510 --> 00:17:39,919
cooling systems so many many things need

404
00:17:43,750 --> 00:17:41,520
to be worked on every day so we spend

405
00:17:45,270 --> 00:17:43,760
some of our time just working on the

406
00:17:47,350 --> 00:17:45,280
space station systems to make sure

407
00:17:50,150 --> 00:17:47,360
everything stays in order and then the

408
00:17:52,390 --> 00:17:50,160
other jobs are doing the science

409
00:17:53,669 --> 00:17:52,400
for the scientists on the ground and the

410
00:17:55,909 --> 00:17:53,679
engineers who have designed our

411
00:17:57,750 --> 00:17:55,919
experiments for us they've made it as

412
00:18:00,230 --> 00:17:57,760
easy as they can for us so that we can

413
00:18:02,950 --> 00:18:00,240

just go up to a rack that has a science

414

00:18:05,669 --> 00:18:02,960

experiment experiment in it perhaps and

415

00:18:06,710 --> 00:18:05,679

just turn it on and maybe just get

416

00:18:08,710 --> 00:18:06,720

things

417

00:18:10,230 --> 00:18:08,720

tuned up for them and then they can

418

00:18:12,070 --> 00:18:10,240

watch it on the ground with cameras we

419

00:18:13,590 --> 00:18:12,080

might put new samples in or something

420

00:18:16,470 --> 00:18:13,600

like that each day so that we can get

421

00:18:18,950 --> 00:18:16,480

the science the science done so we are

422

00:18:20,710 --> 00:18:18,960

just the the eyes ears and hands if you

423

00:18:21,750 --> 00:18:20,720

will of the many many scientists on the

424

00:18:23,029 --> 00:18:21,760

ground who

425

00:18:24,789 --> 00:18:23,039

wish they could come up here to do the

426

00:18:26,870 --> 00:18:24,799

research but because it's so expensive

427

00:18:28,789 --> 00:18:26,880

to get here and back just a few people

428

00:18:32,870 --> 00:18:28,799

get to come so we're we're just here to

429

00:18:37,190 --> 00:18:34,549

all right we have another question for

430

00:18:49,190 --> 00:18:39,029

i was wondering what is the most

431

00:18:52,870 --> 00:18:51,270

well this trip right now really tops

432

00:18:55,029 --> 00:18:52,880

them all i'd say

433

00:18:56,789 --> 00:18:55,039

and as kevin said launches are very

434

00:18:59,190 --> 00:18:56,799

exciting so the launching on the space

435

00:19:00,710 --> 00:18:59,200

shuttle and launching on the soyuz is

436

00:19:02,870 --> 00:19:00,720

probably the most interesting and

437

00:19:05,909 --> 00:19:02,880

exciting thing

438

00:19:07,669 --> 00:19:05,919

certainly in my professional career

439

00:19:09,190 --> 00:19:07,679

i've been a doctor i've been several

440

00:19:10,950 --> 00:19:09,200

other things in my life but that tops

441

00:19:11,669 --> 00:19:10,960

them all i'd say

442

00:19:14,470 --> 00:19:11,679

but

443

00:19:15,909 --> 00:19:14,480

as i mentioned before also

444

00:19:18,950 --> 00:19:15,919

working the people that i get to work

445

00:19:20,230 --> 00:19:18,960

with at nasa who are all very curious

446

00:19:22,549 --> 00:19:20,240

smart folks

447

00:19:23,750 --> 00:19:22,559

and all of us working together to get a

448

00:19:30,630 --> 00:19:23,760

job done

449

00:19:33,990 --> 00:19:32,230

gentlemen we can't thank you enough for

450

00:19:35,830 --> 00:19:34,000

the time you spent with us today boys

451
00:19:37,110 --> 00:19:35,840
and girls can we give them a huge round

452
00:19:48,789 --> 00:19:37,120
of applause say thank you to the

453
00:19:53,350 --> 00:19:51,270
thank you so much for having us the

454
00:19:55,510 --> 00:19:53,360
questions were wonderful it's great to

455
00:19:57,990 --> 00:19:55,520
hear your voices and i'm just exciting

456
00:19:59,750 --> 00:19:58,000
to see the future leaders of tomorrow

457
00:20:01,590 --> 00:19:59,760
you will be going into space or sending

458
00:20:11,430 --> 00:20:01,600
someone into space in the future i hope

459
00:20:20,070 --> 00:20:14,149
station this is houston acr thank you

460
00:20:23,830 --> 00:20:21,909
thank you putnam museum of history and

461
00:20:25,590 --> 00:20:23,840
natural science and students stationed