



1  
00:00:26,710 --> 00:00:03,030  
station this is houston are you ready

2  
00:00:36,950 --> 00:00:28,710  
and houston station we're ready for the

3  
00:00:41,110 --> 00:00:38,790  
north carolina museum of natural

4  
00:00:45,830 --> 00:00:41,120  
sciences this is mission control houston

5  
00:00:49,430 --> 00:00:47,670  
station this is brian mallow at the

6  
00:00:51,910 --> 00:00:49,440  
north carolina museum of natural

7  
00:00:53,590 --> 00:00:51,920  
sciences we have an auditorium full of

8  
00:01:02,229 --> 00:00:53,600  
kids that are very anxious to speak with

9  
00:01:13,030 --> 00:01:03,510  
i hear you loud and clear how do you

10  
00:01:18,550 --> 00:01:14,630  
we're very excited that we have a north

11  
00:01:21,990 --> 00:01:20,469  
all right yes show us that you're going

12  
00:01:24,950 --> 00:01:22,000  
to be excited to talk to you i can't

13  
00:01:27,590 --> 00:01:26,230

well we have a bunch of students here

14

00:01:30,789 --> 00:01:27,600

with questions and i'm going to let the

15

00:01:34,310 --> 00:01:32,950

my name is email harris

16

00:01:36,870 --> 00:01:34,320

i'm a sixth grader at more square in

17

00:01:38,710 --> 00:01:36,880

magnet middle school and my question was

18

00:01:40,469 --> 00:01:38,720

what would it have what would happen if

19

00:01:41,670 --> 00:01:40,479

you got hurt on the international space

20

00:01:48,550 --> 00:01:41,680

station

21

00:01:49,510 --> 00:01:48,560

and yeah that could happen it's happened

22

00:01:51,830 --> 00:01:49,520

before

23

00:01:53,190 --> 00:01:51,840

and so we always have two astronauts of

24

00:01:55,350 --> 00:01:53,200

all the astronauts on board here there's

25

00:01:56,789 --> 00:01:55,360

six of us we always have two that are

26

00:01:58,469 --> 00:01:56,799

medically trained to take care of

27

00:02:00,149 --> 00:01:58,479

usually first aid stuff but they can

28

00:02:02,230 --> 00:02:00,159

even take care of some more complicated

29

00:02:04,389 --> 00:02:02,240

things i happen to be a doctor but you

30

00:02:06,230 --> 00:02:04,399

know i could get sick or hurt too so

31

00:02:08,389 --> 00:02:06,240

there's someone to take care of me if i

32

00:02:11,029 --> 00:02:08,399

need it we have medical kits designed by

33

00:02:14,070 --> 00:02:11,039

doctors and nurses on the ground and we

34

00:02:15,990 --> 00:02:14,080

have a an ambulance it's our spaceship

35

00:02:17,589 --> 00:02:16,000

that brought us here if we had to we

36

00:02:19,670 --> 00:02:17,599

could hop into that and be home pretty

37

00:02:21,430 --> 00:02:19,680

quick we hope that doesn't happen and

38

00:02:26,070 --> 00:02:21,440

everybody's been happy and healthy so

39

00:02:32,470 --> 00:02:28,470

thank you

40

00:02:33,910 --> 00:02:32,480

hi i'm natalie richards a ninth grader

41

00:02:36,390 --> 00:02:33,920

from wake young women's leadership

42

00:02:38,550 --> 00:02:36,400

academy and my question is

43

00:02:44,309 --> 00:02:38,560

what is an example of a daily challenge

44

00:02:47,030 --> 00:02:45,190

you know

45

00:02:48,949 --> 00:02:47,040

everything in space is surprising i

46

00:02:50,710 --> 00:02:48,959

think that's what's surprising every

47

00:02:51,910 --> 00:02:50,720

time every day you think you've got it

48

00:02:53,589 --> 00:02:51,920

nailed you think you know what you're

49

00:02:55,270 --> 00:02:53,599

doing something comes up that's

50

00:02:57,110 --> 00:02:55,280

different it's just very complicated we

51  
00:03:00,550 --> 00:02:57,120  
have complicated machines and living in

52  
00:03:02,229 --> 00:03:00,560  
zero gravity is is complicated and so

53  
00:03:04,949 --> 00:03:02,239  
everybody on the ground helps us get

54  
00:03:06,790 --> 00:03:04,959  
work done and we help each other out up

55  
00:03:08,710 --> 00:03:06,800  
here because we're always surprised by

56  
00:03:12,630 --> 00:03:08,720  
the problems we face and i think that's

57  
00:03:16,949 --> 00:03:15,270  
station this is houston acr um please

58  
00:03:23,110 --> 00:03:16,959  
turn off the microphone at the end of

59  
00:03:27,270 --> 00:03:24,710  
okay and you notice there's a slight

60  
00:03:29,589 --> 00:03:27,280  
delay so that's what we're waiting for

61  
00:03:32,630 --> 00:03:29,599  
my name is kate healy and i go to

62  
00:03:34,390 --> 00:03:32,640  
cathedral school my question is how do

63  
00:03:38,630 --> 00:03:34,400

you keep track of the days when you are

64

00:03:45,190 --> 00:03:40,869

you know that's a great question because

65

00:03:47,030 --> 00:03:45,200

we have 16 sunrises and sunsets a day

66

00:03:49,030 --> 00:03:47,040

so we have a hard time keeping track of

67

00:03:51,190 --> 00:03:49,040

the days up here so what we do is we

68

00:03:52,949 --> 00:03:51,200

have a timeline a calendar on our

69

00:03:55,030 --> 00:03:52,959

computers it's on almost every computer

70

00:03:57,350 --> 00:03:55,040

up here and we're able to look at that

71

00:03:58,710 --> 00:03:57,360

and uh every day just take a glance at

72

00:04:00,550 --> 00:03:58,720

it and tell what day of the week we're

73

00:04:02,149 --> 00:04:00,560

at things are so busy up here the time

74

00:04:04,789 --> 00:04:02,159

flies and otherwise we'd never be able

75

00:04:11,270 --> 00:04:04,799

to keep track of the days up here

76

00:04:16,870 --> 00:04:15,110

my name is sofia kuder i and i go to

77

00:04:18,469 --> 00:04:16,880

cathedral school

78

00:04:20,229 --> 00:04:18,479

in third grade

79

00:04:25,189 --> 00:04:20,239

my question is what do you like best

80

00:04:29,030 --> 00:04:26,629

i think what i like best about the

81

00:04:31,110 --> 00:04:29,040

training is how much there is to do and

82

00:04:33,270 --> 00:04:31,120

and it's a lot of variety a lot of

83

00:04:35,749 --> 00:04:33,280

things to do i learned russian get to

84

00:04:37,590 --> 00:04:35,759

fly jets you work under water so that

85

00:04:39,030 --> 00:04:37,600

you can learn how to do space walks and

86

00:04:40,790 --> 00:04:39,040

one of the best things is you get to

87

00:04:42,790 --> 00:04:40,800

talk to and work with all the scientists

88

00:04:44,790 --> 00:04:42,800

that run these experiments and design

89

00:04:46,870 --> 00:04:44,800

these experiments up here so we get to

90

00:04:48,150 --> 00:04:46,880

talk with some very smart people who

91

00:04:49,830 --> 00:04:48,160

love what they do and if you're a

92

00:04:51,830 --> 00:04:49,840

curious person and you like lots of

93

00:04:52,790 --> 00:04:51,840

things then it's an enormous amount of

94

00:04:57,189 --> 00:04:52,800

fun

95

00:04:57,199 --> 00:05:00,710

thank you

96

00:05:04,230 --> 00:05:02,310

my name is james

97

00:05:05,110 --> 00:05:04,240

and my question is what is your favorite

98

00:05:06,629 --> 00:05:05,120

part

99

00:05:12,550 --> 00:05:06,639

what is your favorite

100

00:05:15,830 --> 00:05:14,230

the best part about being an astronaut

101

00:05:17,990 --> 00:05:15,840

there are a lot of fun things about it

102

00:05:19,029 --> 00:05:18,000

the launches the landing the zero

103

00:05:22,070 --> 00:05:19,039

gravity

104

00:05:24,469 --> 00:05:22,080

and looking out the window but i have to

105

00:05:26,950 --> 00:05:24,479

say when i'm done with this job and i'm

106

00:05:28,790 --> 00:05:26,960

looking back on having been an astronaut

107

00:05:30,070 --> 00:05:28,800

the people that i got to work with are

108

00:05:31,430 --> 00:05:30,080

probably

109

00:05:33,749 --> 00:05:31,440

some of the best people in the world to

110

00:05:35,590 --> 00:05:33,759

work with they're smart and they love

111

00:05:37,110 --> 00:05:35,600

what they do and they're all very

112

00:05:39,110 --> 00:05:37,120

friendly we're all very excited about

113

00:05:40,790 --> 00:05:39,120

what we're doing here in space so that's

114

00:05:42,310 --> 00:05:40,800

going to be the most memorable thing is

115

00:05:43,909 --> 00:05:42,320

the people i get a chance to work with

116

00:05:48,629 --> 00:05:43,919

not only my crew mates but everybody on

117

00:05:54,230 --> 00:05:49,990

don't you love how when he lets go over

118

00:05:58,390 --> 00:05:56,390

hello my name is jackson haskell a sixth

119

00:06:00,390 --> 00:05:58,400

grader at moore square museum magnet

120

00:06:02,150 --> 00:06:00,400

middle school if the sun were to have a

121

00:06:07,350 --> 00:06:02,160

solar flare how would that affect the

122

00:06:11,110 --> 00:06:09,350

wow it's a good question we think about

123

00:06:13,510 --> 00:06:11,120

that quite a bit it wouldn't affect the

124

00:06:15,189 --> 00:06:13,520

space station so much as it might affect

125

00:06:16,790 --> 00:06:15,199

us because on the ground you've got the

126  
00:06:18,309 --> 00:06:16,800  
atmosphere and the earth's magnetic

127  
00:06:20,469 --> 00:06:18,319  
field to protect you

128  
00:06:21,749 --> 00:06:20,479  
so if it was really bad uh because

129  
00:06:23,189 --> 00:06:21,759  
they're watching this we call it the

130  
00:06:25,189 --> 00:06:23,199  
space weather they're watching it all

131  
00:06:26,710 --> 00:06:25,199  
the time if it was really strong we

132  
00:06:29,270 --> 00:06:26,720  
could go to a certain part of the space

133  
00:06:30,950 --> 00:06:29,280  
station and hide out inside of uh

134  
00:06:33,350 --> 00:06:30,960  
where there's most of the metal and the

135  
00:06:34,790 --> 00:06:33,360  
aluminum around us to protect us

136  
00:06:36,550 --> 00:06:34,800  
so that's probably what we do it might

137  
00:06:39,029 --> 00:06:36,560  
affect the communications a little bit

138  
00:06:40,469 --> 00:06:39,039

but not too bad but in this orbit we

139

00:06:42,870 --> 00:06:40,479

don't worry too much about the solar

140

00:06:44,870 --> 00:06:42,880

flares when we go to the moon or to mars

141

00:06:46,870 --> 00:06:44,880

or to an asteroid then that's going to

142

00:06:48,710 --> 00:06:46,880

be real serious once we get outside the

143

00:06:50,390 --> 00:06:48,720

magnetic field the earth

144

00:06:51,589 --> 00:06:50,400

and so we'll have to think about that a

145

00:06:52,950 --> 00:06:51,599

lot that's one of the problems maybe

146

00:07:00,070 --> 00:06:52,960

you'll be solving when we start

147

00:07:04,950 --> 00:07:02,790

my name is ryan richards i'm from sixth

148

00:07:06,390 --> 00:07:04,960

i i'm in sixth grade and i'm from

149

00:07:08,950 --> 00:07:06,400

cathedral school

150

00:07:14,870 --> 00:07:08,960

and my question is what is your most

151  
00:07:18,550 --> 00:07:16,710  
there's so many it's it's hard to tell

152  
00:07:20,309 --> 00:07:18,560  
but one i'll never forget again it was

153  
00:07:22,950 --> 00:07:20,319  
with my crewmates

154  
00:07:24,309 --> 00:07:22,960  
and uh on my space shuttle flight and

155  
00:07:25,589 --> 00:07:24,319  
it's happened once on this flight as

156  
00:07:27,510 --> 00:07:25,599  
well when you get a chance to look out

157  
00:07:29,110 --> 00:07:27,520  
the window get a chance to take a break

158  
00:07:30,629 --> 00:07:29,120  
we're very busy up here and don't have a

159  
00:07:32,870 --> 00:07:30,639  
lot of opportunities to look out the

160  
00:07:34,950 --> 00:07:32,880  
window but had a chance to look out the

161  
00:07:36,710 --> 00:07:34,960  
window and as we did in orbit over the

162  
00:07:38,150 --> 00:07:36,720  
earth and i was sharing it with my

163  
00:07:39,670 --> 00:07:38,160

crewmates as we looked out there and

164

00:07:41,589 --> 00:07:39,680

talked about the weather and the storms

165

00:07:43,589 --> 00:07:41,599

that we could see it lasts about 20

166

00:07:45,350 --> 00:07:43,599

minutes and in 20 minutes we went across

167

00:07:47,909 --> 00:07:45,360

the entire united states and got to see

168

00:07:49,670 --> 00:07:47,919

everything below us and just the chance

169

00:07:51,029 --> 00:07:49,680

to relax and

170

00:07:52,469 --> 00:07:51,039

talk to each other about what we were

171

00:07:59,589 --> 00:07:52,479

seeing that is one of the things i'll

172

00:08:03,990 --> 00:08:02,230

hi my name is haley smith i'm in ninth

173

00:08:06,150 --> 00:08:04,000

grade and i'm from wake young women's

174

00:08:11,990 --> 00:08:06,160

leadership academy and my question is

175

00:08:16,070 --> 00:08:13,749

you know there wasn't one astronaut that

176

00:08:18,710 --> 00:08:16,080

inspired me but i would say all of the

177

00:08:20,390 --> 00:08:18,720

original astronauts you know the mercury

178

00:08:22,070 --> 00:08:20,400

gemini and apollo astronauts all

179

00:08:23,670 --> 00:08:22,080

inspired me i

180

00:08:25,749 --> 00:08:23,680

read about them all i read every

181

00:08:28,309 --> 00:08:25,759

biography i could i was very fascinated

182

00:08:29,029 --> 00:08:28,319

about what they did and i tried to pick

183

00:08:31,589 --> 00:08:29,039

out

184

00:08:33,430 --> 00:08:31,599

everything that they did that i that

185

00:08:35,509 --> 00:08:33,440

appealed to me that i thought i could do

186

00:08:37,269 --> 00:08:35,519

and so i started doing those things and

187

00:08:39,430 --> 00:08:37,279

so i'd have to say that all of the

188

00:08:40,870 --> 00:08:39,440

original astronauts really

189

00:08:43,430 --> 00:08:40,880

appealed or

190

00:08:48,710 --> 00:08:43,440

inspired me quite a bit

191

00:08:52,870 --> 00:08:51,190

hi my name is sarah roberts and i'm a

192

00:08:54,470 --> 00:08:52,880

ninth grader at wake young women's

193

00:08:56,630 --> 00:08:54,480

leadership academy

194

00:08:58,870 --> 00:08:56,640

my question is what advice would you

195

00:09:00,470 --> 00:08:58,880

give to a student like myself that is

196

00:09:05,269 --> 00:09:00,480

interested in following in your

197

00:09:11,030 --> 00:09:08,310

well i think the best advice you give is

198

00:09:12,949 --> 00:09:11,040

to start right now and

199

00:09:15,110 --> 00:09:12,959

you're in school right now this is the

200

00:09:16,790 --> 00:09:15,120

time that you're learning how to learn

201  
00:09:18,310 --> 00:09:16,800  
so trying to master everything that

202  
00:09:19,750 --> 00:09:18,320  
you're learning do the best that you can

203  
00:09:21,190 --> 00:09:19,760  
that along the way if you haven't

204  
00:09:23,030 --> 00:09:21,200  
already you will find one of those

205  
00:09:25,269 --> 00:09:23,040  
things that you fall in love with

206  
00:09:27,030 --> 00:09:25,279  
and that's what you chase after is the

207  
00:09:28,630 --> 00:09:27,040  
thing you fall in love with who knows

208  
00:09:29,750 --> 00:09:28,640  
what the next generation of astronauts

209  
00:09:31,750 --> 00:09:29,760  
is going to be

210  
00:09:33,750 --> 00:09:31,760  
certainly if it's in science technology

211  
00:09:35,350 --> 00:09:33,760  
engineering or math right now

212  
00:09:36,870 --> 00:09:35,360  
that's we're certainly going to need

213  
00:09:39,509 --> 00:09:36,880

those types of astronauts that are

214

00:09:41,670 --> 00:09:39,519

experts in those things in the future

215

00:09:43,509 --> 00:09:41,680

but so i would start right now trying to

216

00:09:46,310 --> 00:09:43,519

be the person you want to be

217

00:09:48,150 --> 00:09:46,320

and be very curious and try to master

218

00:09:49,350 --> 00:09:48,160

everything you're doing in school and

219

00:09:52,070 --> 00:09:49,360

you'll be able to get there one of these

220

00:09:52,080 --> 00:09:57,990

thank you

221

00:10:01,910 --> 00:10:00,070

hi i'm connor grummer from the wake

222

00:10:03,910 --> 00:10:01,920

young men's leadership academy my

223

00:10:05,829 --> 00:10:03,920

question is what is one goal you would

224

00:10:11,269 --> 00:10:05,839

like to achieve before you retire from

225

00:10:15,110 --> 00:10:12,870

well hopefully retirement's not a ways

226

00:10:16,310 --> 00:10:15,120

away but it's probably coming up sooner

227

00:10:17,110 --> 00:10:16,320

than i'd like because this is a great

228

00:10:19,509 --> 00:10:17,120

job

229

00:10:21,350 --> 00:10:19,519

what i would like to do before i retire

230

00:10:22,310 --> 00:10:21,360

and after this flight is done

231

00:10:23,750 --> 00:10:22,320

is

232

00:10:25,670 --> 00:10:23,760

to take everything i've learned from

233

00:10:26,949 --> 00:10:25,680

this flight it's a pretty rare chance to

234

00:10:28,630 --> 00:10:26,959

get to fly in space and a lot of

235

00:10:31,110 --> 00:10:28,640

astronauts waiting so i want to give

236

00:10:33,030 --> 00:10:31,120

them the information they need and

237

00:10:34,630 --> 00:10:33,040

ground control the information they need

238

00:10:36,310 --> 00:10:34,640

so that the next space flights will be

239

00:10:37,829 --> 00:10:36,320

even more successful and more efficient

240

00:10:39,670 --> 00:10:37,839

and we can get more done

241

00:10:41,829 --> 00:10:39,680

so i'll stick around for a while and

242

00:10:47,590 --> 00:10:41,839

i'll be uh helping people learn how to

243

00:10:47,600 --> 00:10:50,550

thank you

244

00:10:55,190 --> 00:10:52,949

hi my name is jake baze and i go to wake

245

00:10:56,630 --> 00:10:55,200

young men's leadership academy and i

246

00:11:02,069 --> 00:10:56,640

just want to know what is the most

247

00:11:05,590 --> 00:11:03,430

well i kind of like the other questions

248

00:11:08,470 --> 00:11:05,600

it's hard to pick out one thing

249

00:11:10,069 --> 00:11:08,480

space walks were absolutely exciting and

250

00:11:11,509 --> 00:11:10,079

very interesting

251  
00:11:12,630 --> 00:11:11,519  
but some of the science we're doing up

252  
00:11:15,110 --> 00:11:12,640  
here

253  
00:11:16,470 --> 00:11:15,120  
on this uh voyage right now is some of

254  
00:11:20,150 --> 00:11:16,480  
the most interesting things i've ever

255  
00:11:22,949 --> 00:11:20,160  
seen before to see uh fluids and metals

256  
00:11:25,190 --> 00:11:22,959  
and particles in uh moving around in

257  
00:11:27,030 --> 00:11:25,200  
zero gravity to have gravity removed

258  
00:11:29,350 --> 00:11:27,040  
from that this is these are things that

259  
00:11:31,590 --> 00:11:29,360  
people are never been able to see before

260  
00:11:33,269 --> 00:11:31,600  
we get videos and photographs so

261  
00:11:35,590 --> 00:11:33,279  
everybody on the ground can see them but

262  
00:11:38,069 --> 00:11:35,600  
we get astronauts get to see them live

263  
00:11:40,150 --> 00:11:38,079

as they're happening and that satisfies

264

00:11:42,630 --> 00:11:40,160

enormous amount of curiosity and we

265

00:11:44,550 --> 00:11:42,640

discover new things every day i see

266

00:11:46,069 --> 00:11:44,560

things i've never seen before every day

267

00:11:49,030 --> 00:11:46,079

and that's probably the most exciting

268

00:11:49,040 --> 00:11:51,990

thank you

269

00:11:55,990 --> 00:11:54,310

hi my name is lyric burnett i'm a sixth

270

00:11:58,470 --> 00:11:56,000

grader at moore grand museum magnet

271

00:12:00,230 --> 00:11:58,480

middle school and my question is what do

272

00:12:05,269 --> 00:12:00,240

you do most of the time when you are on

273

00:12:09,110 --> 00:12:07,509

well we do research up here we have a

274

00:12:11,030 --> 00:12:09,120

bunch of laboratories from all around

275

00:12:13,590 --> 00:12:11,040

the world and we've been training to run

276

00:12:14,949 --> 00:12:13,600

the experiments of scientists very smart

277

00:12:18,550 --> 00:12:14,959

people who have been coming up with

278

00:12:20,629 --> 00:12:18,560

these ideas of things we can do in space

279

00:12:22,310 --> 00:12:20,639

to build

280

00:12:23,829 --> 00:12:22,320

develop new technology and build new

281

00:12:25,750 --> 00:12:23,839

materials and to figure out health

282

00:12:27,269 --> 00:12:25,760

problems that we never knew before it's

283

00:12:28,949 --> 00:12:27,279

amazing what you can do when you remove

284

00:12:30,949 --> 00:12:28,959

gravity so we

285

00:12:32,790 --> 00:12:30,959

spend a lot of time most of our time

286

00:12:33,910 --> 00:12:32,800

doing research the rest of time we're

287

00:12:35,990 --> 00:12:33,920

taking care of our bodies we're

288

00:12:38,069 --> 00:12:36,000

exercising where we have to eat we have

289

00:12:40,230 --> 00:12:38,079

to get ready to eat we have to clean up

290

00:12:42,310 --> 00:12:40,240

on the weekends is when we clean up the

291

00:12:43,750 --> 00:12:42,320

space station so we're always busy but

292

00:12:47,110 --> 00:12:43,760

we like the work and there is a little

293

00:12:47,120 --> 00:12:52,069

thank you

294

00:12:56,389 --> 00:12:54,949

hey i'm cormac ferguson i go to

295

00:12:59,910 --> 00:12:56,399

cathedral school

296

00:13:05,350 --> 00:12:59,920

my question is why is everything round

297

00:13:09,750 --> 00:13:07,990

that is a great question because i'm not

298

00:13:10,550 --> 00:13:09,760

round and this microphone's not round

299

00:13:11,910 --> 00:13:10,560

but

300

00:13:13,190 --> 00:13:11,920

if they weren't solids if they were

301

00:13:15,030 --> 00:13:13,200

liquids if the molecules weren't

302

00:13:17,350 --> 00:13:15,040

sticking them together so hard they

303

00:13:18,710 --> 00:13:17,360

would be round and things would be round

304

00:13:19,990 --> 00:13:18,720

just like fluids are and i'll show you

305

00:13:21,110 --> 00:13:20,000

here in a little bit if you'd like to

306

00:13:22,790 --> 00:13:21,120

see it

307

00:13:24,470 --> 00:13:22,800

and that's because the effects of

308

00:13:26,310 --> 00:13:24,480

gravity on earth

309

00:13:28,069 --> 00:13:26,320

kind of flatten everything out and kind

310

00:13:31,509 --> 00:13:28,079

of takes over all the other really

311

00:13:34,069 --> 00:13:31,519

delicate uh details of

312

00:13:36,150 --> 00:13:34,079

things like fluids and gases so up here

313

00:13:38,389 --> 00:13:36,160

in space all those little delicate

314

00:13:40,230 --> 00:13:38,399

forces say surface tension and liquids

315

00:13:42,470 --> 00:13:40,240

or even the little gravity forces

316

00:13:44,629 --> 00:13:42,480

between rocks in space

317

00:13:46,150 --> 00:13:44,639

those take over and so the rocks come

318

00:13:47,430 --> 00:13:46,160

together to form asteroids and then

319

00:13:49,750 --> 00:13:47,440

planets and they all come in the same

320

00:13:51,829 --> 00:13:49,760

direction for it so it'll be round or

321

00:13:53,509 --> 00:13:51,839

with fluids you get

322

00:13:54,550 --> 00:13:53,519

surface tension making things tight into

323

00:13:55,269 --> 00:13:54,560

a ball

324

00:13:56,870 --> 00:13:55,279

and

325

00:13:59,910 --> 00:13:56,880

so that's why things are round up here

326

00:13:59,920 --> 00:14:03,189

thank you

327

00:14:07,350 --> 00:14:05,030

hi my name is griffin bloomquist i'm

328

00:14:09,269 --> 00:14:07,360

from cathedral school sixth grade

329

00:14:10,870 --> 00:14:09,279

is there an air recycling system on

330

00:14:15,590 --> 00:14:10,880

board or do you just have supplies

331

00:14:19,990 --> 00:14:18,069

we have some nitrogen and some oxygen

332

00:14:21,269 --> 00:14:20,000

which makes the air already up here but

333

00:14:23,430 --> 00:14:21,279

we don't like to use it because we don't

334

00:14:25,189 --> 00:14:23,440

want to run out of it so yeah we recycle

335

00:14:27,509 --> 00:14:25,199

it our bodies use up a little bit of the

336

00:14:28,949 --> 00:14:27,519

oxygen but we have machines that take

337

00:14:30,790 --> 00:14:28,959

that oxygen

338

00:14:32,310 --> 00:14:30,800

out from what we put out from our bodies

339

00:14:34,629 --> 00:14:32,320

if you know what i'm talking about and

340

00:14:36,150 --> 00:14:34,639

takes out the oxygen again and dumps it

341

00:14:37,910 --> 00:14:36,160

back in the atmosphere

342

00:14:39,189 --> 00:14:37,920

and so our bodies don't use the nitrogen

343

00:14:41,189 --> 00:14:39,199

too much so we are constantly

344

00:14:42,550 --> 00:14:41,199

re-breathing the same air

345

00:14:44,230 --> 00:14:42,560

that we breathed before and we have

346

00:14:45,990 --> 00:14:44,240

filters and air conditioners so it's

347

00:14:49,350 --> 00:14:46,000

nice fresh clean air when it comes back

348

00:14:53,990 --> 00:14:51,750

thank you

349

00:14:56,389 --> 00:14:54,000

hi my name is alex him and i'm from

350

00:14:58,310 --> 00:14:56,399

cathedral school i just want to know if

351

00:15:03,110 --> 00:14:58,320

your spacesuits are stiff when you're

352

00:15:07,509 --> 00:15:05,350

they are they look nice and fluffy but

353

00:15:09,430 --> 00:15:07,519

they're not because you pressurize them

354

00:15:10,470 --> 00:15:09,440

so just like a football when it's flat

355

00:15:12,470 --> 00:15:10,480

is all

356

00:15:14,550 --> 00:15:12,480

all wobbly and you can bend it if you

357

00:15:16,710 --> 00:15:14,560

pump it up with air it's really tight

358

00:15:18,230 --> 00:15:16,720

you can't bend a football it's very hard

359

00:15:20,069 --> 00:15:18,240

to bend your arms and legs in a space

360

00:15:21,910 --> 00:15:20,079

suit so they build in joints so we can

361

00:15:27,110 --> 00:15:21,920

move them around but it is very tight

362

00:15:30,470 --> 00:15:29,030

hi my name is imandi henderson of white

363

00:15:32,470 --> 00:15:30,480

young women's leadership academy and i'm

364

00:15:39,189 --> 00:15:32,480

in ninth grade and i was wondering can

365

00:15:44,310 --> 00:15:41,590

yeah we can we can't text but we have

366

00:15:46,230 --> 00:15:44,320

email and we have phone calls uh we can

367

00:15:48,150 --> 00:15:46,240

make phone calls but

368

00:15:49,990 --> 00:15:48,160

the satellites that we we bounce the

369

00:15:51,189 --> 00:15:50,000

signal off of satellites so that even

370

00:15:53,269 --> 00:15:51,199

though we're going around the world

371

00:15:54,710 --> 00:15:53,279

really fast we can always be bouncing

372

00:15:57,110 --> 00:15:54,720

off a different satellite so we can make

373

00:15:59,350 --> 00:15:57,120

a phone call to one phone so i can dial

374

00:16:01,350 --> 00:15:59,360

up a phone and call it as long as the

375

00:16:03,269 --> 00:16:01,360

satellites are lined up and and usually

376

00:16:05,590 --> 00:16:03,279

that's the case but not always and we do

377

00:16:08,069 --> 00:16:05,600

have email mission control takes care of

378

00:16:09,509 --> 00:16:08,079

that for us and several times a day they

379

00:16:11,590 --> 00:16:09,519

give us our email and take down the

380

00:16:13,269 --> 00:16:11,600

messages we've sent and it's it's really

381

00:16:16,389 --> 00:16:13,279

very nice it's a wonderful contact with

382

00:16:20,710 --> 00:16:18,710

thank you

383

00:16:22,069 --> 00:16:20,720

hi my name is johnny jones and i attend

384

00:16:23,670 --> 00:16:22,079

a wake young women's leadership academy

385

00:16:25,829 --> 00:16:23,680

and i'm in ninth grade and i want to

386

00:16:30,870 --> 00:16:25,839

know how many pounds of personal items

387

00:16:34,629 --> 00:16:32,790

we're allowed two and a half kilos now

388

00:16:36,550 --> 00:16:34,639

that's stuff we can bring into space and

389

00:16:37,590 --> 00:16:36,560

bring back we're allowed to bring more

390

00:16:38,710 --> 00:16:37,600

than that up here but we're going to

391

00:16:40,550 --> 00:16:38,720

have to throw that away because there's

392

00:16:42,790 --> 00:16:40,560

just not enough room in our rocket ship

393

00:16:44,710 --> 00:16:42,800

to get home so probably about 10 to 20

394

00:16:47,110 --> 00:16:44,720

pounds i've got some books and some

395

00:16:49,509 --> 00:16:47,120

pictures that sort of thing but only two

396

00:16:56,470 --> 00:16:49,519

and a half kilos that i can bring up and

397

00:17:00,629 --> 00:16:58,790

hello my name is wylie eubank and i go

398

00:17:03,269 --> 00:17:00,639

to cathedral school and i'm in third

399

00:17:09,990 --> 00:17:03,279

grade and i just wanted to know how do

400

00:17:13,669 --> 00:17:12,549

you go very carefully it takes some

401

00:17:16,150 --> 00:17:13,679

practice

402

00:17:18,949 --> 00:17:16,160

but instead of gravity we rely on air

403

00:17:21,189 --> 00:17:18,959

flow so we have a vent and some with air

404

00:17:22,949 --> 00:17:21,199

rushing in that does what gravity does

405

00:17:25,669 --> 00:17:22,959

for you on the ground but you still have

406

00:17:27,029 --> 00:17:25,679

to be very careful with it and number

407

00:17:29,270 --> 00:17:27,039

one and number two are different because

408

00:17:31,350 --> 00:17:29,280

one's a liquid and one's a solid

409

00:17:33,350 --> 00:17:31,360

actually the liquid part

410

00:17:35,990 --> 00:17:33,360

we put into a machine that converts it

411

00:17:38,310 --> 00:17:36,000

back into our drinking water so we're

412

00:17:39,669 --> 00:17:38,320

drinking some of the same drinks that we

413

00:17:41,990 --> 00:17:39,679

the water from the same drinks that we

414

00:17:43,669 --> 00:17:42,000

drank a few days ago but it's all fresh

415

00:17:47,909 --> 00:17:43,679

clean water it's a wonderful system it's

416

00:17:51,669 --> 00:17:49,510

thank you

417

00:17:53,430 --> 00:17:51,679

tom we only have two more questions and

418

00:17:56,070 --> 00:17:53,440

we hope you can sort of show us that

419

00:17:58,789 --> 00:17:56,080

you're in zero gravity also

420

00:18:00,950 --> 00:17:58,799

hi my name is melissa stevens i'm in

421

00:18:07,669 --> 00:18:00,960

third grade at cathedral school my

422

00:18:25,909 --> 00:18:09,430

i think you said how do you eat in space

423

00:18:29,909 --> 00:18:27,909

so we drink out of these pouches here

424

00:18:31,750 --> 00:18:29,919

and that is some drinking water here

425

00:18:33,830 --> 00:18:31,760

it's nice clean water came out of that

426

00:18:37,110 --> 00:18:33,840

machine i was talking about so we use

427

00:18:44,470 --> 00:18:37,120

that water to rehydrate our food here is

428

00:18:44,480 --> 00:18:48,549

so we can rehydrate

429

00:18:53,350 --> 00:18:51,190

this is a bunch of vegetables it's all

430

00:18:54,830 --> 00:18:53,360

dehydrated it doesn't look very good

431

00:18:58,549 --> 00:18:54,840

it's very

432

00:18:59,830 --> 00:18:58,559

crunchy once you put some water in it

433

00:19:01,590 --> 00:18:59,840

this i don't know if you can guess what

434

00:19:03,590 --> 00:19:01,600

this is this is nice

435

00:19:06,070 --> 00:19:03,600

macaroni and cheese

436

00:19:07,750 --> 00:19:06,080

so it's very nice once we rehydrate our

437

00:19:10,230 --> 00:19:07,760

food and get it going again some stuff

438

00:19:12,549 --> 00:19:10,240

we don't have to rehydrate so we've got

439

00:19:13,990 --> 00:19:12,559

pouches of things like this which is

440

00:19:16,150 --> 00:19:14,000

trail mix

441

00:19:17,270 --> 00:19:16,160

we also have pouches of meat that we can

442

00:19:19,029 --> 00:19:17,280

heat up

443

00:19:21,190 --> 00:19:19,039

the food actually is wonderful up here

444

00:19:24,230 --> 00:19:21,200

we've come a long ways and we love meal

445

00:19:24,240 --> 00:19:28,150

thank you

446

00:19:32,390 --> 00:19:30,710

hi my name is destiny mckinnon and i

447

00:19:33,750 --> 00:19:32,400

want i'm in sixth grade and i go to

448

00:19:35,830 --> 00:19:33,760

moore square

449

00:19:41,590 --> 00:19:35,840

magnet middle school i want to know how

450

00:19:45,029 --> 00:19:43,110

you know there's a lot of talk about all

451  
00:19:47,110 --> 00:19:45,039  
the objects in space and there are a lot

452  
00:19:49,029 --> 00:19:47,120  
in orbit around the earth but space is a

453  
00:19:50,789 --> 00:19:49,039  
big place there's a lot of space in

454  
00:19:52,630 --> 00:19:50,799  
space so we don't have to worry about it

455  
00:19:54,390 --> 00:19:52,640  
too much ground control is watching it

456  
00:19:55,590 --> 00:19:54,400  
for us there's a radar system that

457  
00:19:57,029 --> 00:19:55,600  
watches

458  
00:19:59,990 --> 00:19:57,039  
keeps track of everything bigger than a

459  
00:20:01,909 --> 00:20:00,000  
golf ball that's in orbit so we very

460  
00:20:02,710 --> 00:20:01,919  
rarely ever see those things if anything

461  
00:20:05,350 --> 00:20:02,720  
even

462  
00:20:07,350 --> 00:20:05,360  
seems to be coming close they'll tell us

463  
00:20:09,350 --> 00:20:07,360

and if we have to we'll move the space

464

00:20:10,710 --> 00:20:09,360

station a little bit to avoid and if we

465

00:20:12,549 --> 00:20:10,720

don't have time to do that we'll even

466

00:20:14,230 --> 00:20:12,559

get into our little spaceship so we're

467

00:20:16,149 --> 00:20:14,240

nice and safe in case anything hits the

468

00:20:17,830 --> 00:20:16,159

space station but there's a lot of

469

00:20:19,750 --> 00:20:17,840

things in place a lot of people watching

470

00:20:25,190 --> 00:20:19,760

so that won't uh we don't think that'll

471

00:20:30,630 --> 00:20:27,669

and that was our final question

472

00:20:43,750 --> 00:20:30,640

so uh thank you very much from all of

473

00:20:46,149 --> 00:20:45,270

thank you very much it's always a

474

00:20:52,630 --> 00:20:46,159

delight

475

00:20:52,640 --> 00:21:00,950

thanks again say goodbye

476

00:21:00,960 --> 00:21:05,190

you can't do that down here

477

00:21:11,669 --> 00:21:07,669

station this is houston acr thank you

478

00:21:16,470 --> 00:21:13,669

thank you north carolina museum of

479

00:21:18,630 --> 00:21:16,480

natural sciences and students station we