



12TH GRADE **Maggie Schultz**
How has your perspective changed since seeing the Earth from the space station?

1
00:00:06,230 --> 00:00:02,629
and station this is houston are you

2
00:00:09,990 --> 00:00:08,070
houston this is station we are ready for

3
00:00:12,070 --> 00:00:10,000
the event

4
00:00:13,830 --> 00:00:12,080
and gaylord st mary's cathedral this is

5
00:00:16,310 --> 00:00:13,840
mission control houston please call

6
00:00:18,550 --> 00:00:16,320
station for a voice check

7
00:00:20,550 --> 00:00:18,560
station this is debbie roberts here with

8
00:00:24,550 --> 00:00:20,560
the students from st mary's do you hear

9
00:00:28,150 --> 00:00:26,550
we hear you loud and clear gaylord saint

10
00:00:31,870 --> 00:00:28,160
mary's cathedral school welcome aboard

11
00:00:39,510 --> 00:00:36,280
[Applause]

12
00:00:41,590 --> 00:00:39,520
[Music]

13
00:00:44,310 --> 00:00:41,600

good morning i'm nicole hatch i'm the

14

00:00:46,709 --> 00:00:44,320

principal here and on behalf of the

15

00:00:48,630 --> 00:00:46,719

snowbirds and mayor jenkins we would

16

00:00:51,600 --> 00:00:48,640

like to welcome you to our school we

17

00:00:56,630 --> 00:00:51,610

will get started with our 20 questions

18

00:01:05,830 --> 00:00:58,549

hi joe

19

00:01:10,070 --> 00:01:08,550

hello yeah it was always a dream of mine

20

00:01:13,350 --> 00:01:10,080

to come to space

21

00:01:14,789 --> 00:01:13,360

uh when i was probably your age or so uh

22

00:01:17,190 --> 00:01:14,799

there were people that were walking on

23

00:01:18,950 --> 00:01:17,200

the moon and that was very exciting i'd

24

00:01:21,270 --> 00:01:18,960

like to read books that talked about

25

00:01:23,190 --> 00:01:21,280

people going to different planets so

26

00:01:25,670 --> 00:01:23,200

ever since i was young i had this dream

27

00:01:30,149 --> 00:01:25,680

of coming to space and i'm lucky enough

28

00:01:35,270 --> 00:01:33,109

hi randy i'm gracie do you ever have to

29

00:01:39,670 --> 00:01:35,280

clean the windows on the outer or the

30

00:01:44,149 --> 00:01:41,830

we do have to clean the windows

31

00:01:46,469 --> 00:01:44,159

on the inside because you know us human

32

00:01:49,350 --> 00:01:46,479

beings we've got skin we've got oils

33

00:01:51,109 --> 00:01:49,360

we've got hairs we we are creatures that

34

00:01:52,149 --> 00:01:51,119

shed off some of our stuff and so we

35

00:01:53,990 --> 00:01:52,159

have to go and clean our windows

36

00:01:55,670 --> 00:01:54,000

especially we want to take pictures we

37

00:01:58,069 --> 00:01:55,680

don't clean them on the outside

38

00:01:59,830 --> 00:01:58,079

however um because there's you know

39

00:02:01,429 --> 00:01:59,840

water would freeze and your wipes don't

40

00:02:03,510 --> 00:02:01,439

work so well and there's actually a

41

00:02:05,190 --> 00:02:03,520

window on the space station where a

42

00:02:06,149 --> 00:02:05,200

somebody on a spacewalk one time tried

43

00:02:08,469 --> 00:02:06,159

to clean it and touched it with their

44

00:02:16,150 --> 00:02:08,479

glove and left a smudge mark that's

45

00:02:19,910 --> 00:02:17,990

hi joe i'm brad

46

00:02:21,190 --> 00:02:19,920

before and after you took off from earth

47

00:02:26,949 --> 00:02:21,200

what were some of your thoughts and

48

00:02:31,990 --> 00:02:29,830

hey brad well you know before you launch

49

00:02:34,550 --> 00:02:32,000

to go to space you're really really

50

00:02:36,229 --> 00:02:34,560

excited people ask you if you're scared

51
00:02:37,589 --> 00:02:36,239
and you're not really scared but it's

52
00:02:39,110 --> 00:02:37,599
almost like you know that day you're

53
00:02:40,710 --> 00:02:39,120
going to the amusement park and you're

54
00:02:43,670 --> 00:02:40,720
all pumped up you've been waiting a long

55
00:02:45,270 --> 00:02:43,680
time to go so that's a great feeling

56
00:02:47,589 --> 00:02:45,280
and then when it's time to finally come

57
00:02:49,670 --> 00:02:47,599
home you kind of have the mixed feelings

58
00:02:51,350 --> 00:02:49,680
part of you you know wants to stay on

59
00:02:53,670 --> 00:02:51,360
the space station because it's very cool

60
00:02:55,110 --> 00:02:53,680
to be up here and be weightless

61
00:02:57,509 --> 00:02:55,120
but then part of you really wants to get

62
00:02:59,910 --> 00:02:57,519
back home to your family and friends and

63
00:03:05,910 --> 00:02:59,920

a big fat cheeseburger so it's a kind of

64

00:03:14,470 --> 00:03:10,149

hi randy we are liam and andrew what

65

00:03:18,550 --> 00:03:14,480

jobs do you do in space besides being an

66

00:03:22,790 --> 00:03:20,309

liam and andrew great question we have

67

00:03:24,710 --> 00:03:22,800

so many jobs

68

00:03:26,869 --> 00:03:24,720

you saw minus cx yesterday we were doing

69

00:03:27,910 --> 00:03:26,879

a space walks repairing the robotic arm

70

00:03:29,670 --> 00:03:27,920

outside

71

00:03:30,949 --> 00:03:29,680

joe was inside making sure we could go

72

00:03:32,869 --> 00:03:30,959

outside and take care of the airlock and

73

00:03:34,949 --> 00:03:32,879

get our suits ready paula was working on

74

00:03:35,990 --> 00:03:34,959

experiments while we were

75

00:03:37,589 --> 00:03:36,000

outside

76

00:03:39,270 --> 00:03:37,599

and then on other days we're not doing

77

00:03:40,949 --> 00:03:39,280

spacewalks we got science experiments in

78

00:03:43,990 --> 00:03:40,959

glovebox we've got racks that are going

79

00:03:46,550 --> 00:03:44,000

to look at fluid experiments and then

80

00:03:48,630 --> 00:03:46,560

fire experiments joe's growing lettuce

81

00:03:50,070 --> 00:03:48,640

on space station on the weekends we

82

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

clean space days we've got to take out

83

00:03:54,470 --> 00:03:51,760

the trash and vacuum and clean up the

84

00:03:55,670 --> 00:03:54,480

filters um and then wipe everything down

85

00:03:57,910 --> 00:03:55,680

because we're moving around with our

86

00:04:01,910 --> 00:03:57,920

hands all the time so we got lots of

87

00:04:03,030 --> 00:04:01,920

jobs science officer repairman trashman

88

00:04:04,869 --> 00:04:03,040

and also

89

00:04:06,869 --> 00:04:04,879

here to show you what it's like to be in

90

00:04:13,030 --> 00:04:06,879

space so that you might be interested in

91

00:04:18,629 --> 00:04:16,150

hi joe i'm alex can you tell us one of

92

00:04:25,430 --> 00:04:18,639

the surprising or unexpected research

93

00:04:28,950 --> 00:04:27,350

hey alex well i just got up here a

94

00:04:30,469 --> 00:04:28,960

couple of weeks ago

95

00:04:33,110 --> 00:04:30,479

so i'm starting a bunch of new

96

00:04:34,950 --> 00:04:33,120

experiments when i was here last time

97

00:04:36,230 --> 00:04:34,960

some of the really cool things we were

98

00:04:39,110 --> 00:04:36,240

looking at how

99

00:04:41,430 --> 00:04:39,120

different fluids react in space and the

100

00:04:43,670 --> 00:04:41,440

way they hug to the walls kind of like

101
00:04:45,430 --> 00:04:43,680
what he's doing and that was pretty cool

102
00:04:46,870 --> 00:04:45,440
because we saw some things nobody has

103
00:04:48,550 --> 00:04:46,880
ever seen before

104
00:04:51,590 --> 00:04:48,560
the same with fire we were trying to

105
00:04:53,510 --> 00:04:51,600
look at how it behaves in space but this

106
00:04:55,830 --> 00:04:53,520
time around what's cool for me that's

107
00:04:57,430 --> 00:04:55,840
the first time like randy said i'm

108
00:04:59,990 --> 00:04:57,440
growing plants so

109
00:05:02,150 --> 00:05:00,000
we added water to them last week and now

110
00:05:03,830 --> 00:05:02,160
they're about i don't know so big

111
00:05:05,909 --> 00:05:03,840
and so i'm gardening up here i guess

112
00:05:11,430 --> 00:05:05,919
that's another job we have joe acaba

113
00:05:16,550 --> 00:05:14,070

hi randy i'm miriam how does your

114

00:05:18,390 --> 00:05:16,560

station that is underwater aquarius

115

00:05:22,950 --> 00:05:18,400

survive hurricanes and other natural

116

00:05:26,790 --> 00:05:25,029

well aquarius has done a really good job

117

00:05:28,950 --> 00:05:26,800

over the years it's anchored to the

118

00:05:31,029 --> 00:05:28,960

seafloor a huge seat with chains and

119

00:05:31,990 --> 00:05:31,039

everything like that

120

00:05:34,390 --> 00:05:32,000

after

121

00:05:36,790 --> 00:05:34,400

irma came through though there was some

122

00:05:38,550 --> 00:05:36,800

some damage and also

123

00:05:39,430 --> 00:05:38,560

to the buoy that where the lines are

124

00:05:41,110 --> 00:05:39,440

tended up to where we have

125

00:05:43,189 --> 00:05:41,120

communications and breathing tubes and

126

00:05:45,110 --> 00:05:43,199

that type of stuff so

127

00:05:47,189 --> 00:05:45,120

it's one of those things that uh you

128

00:05:49,110 --> 00:05:47,199

know nature happens but i do know that

129

00:05:51,270 --> 00:05:49,120

aquarius is still there and people can

130

00:05:52,870 --> 00:05:51,280

go on there's a hashtag for aquarius

131

00:05:54,310 --> 00:05:52,880

recovery they can see what the what the

132

00:05:55,590 --> 00:05:54,320

current status is and hopefully we'll

133

00:05:57,909 --> 00:05:55,600

get it back to an operational state

134

00:05:59,590 --> 00:05:57,919

because it's the only underwater habitat

135

00:06:06,870 --> 00:05:59,600

where people can live anywhere in the

136

00:06:17,110 --> 00:06:09,909

hi joe we are cooper and hudson when you

137

00:06:21,909 --> 00:06:19,110

hey cooper and hudson that's a great

138

00:06:24,469 --> 00:06:21,919

question um you know luckily before we

139

00:06:26,150 --> 00:06:24,479

come up here uh we go into what's called

140

00:06:27,670 --> 00:06:26,160

quarantine where we try to stay as

141

00:06:29,510 --> 00:06:27,680

healthy as we can

142

00:06:30,870 --> 00:06:29,520

so it's pretty cool that usually when

143

00:06:33,590 --> 00:06:30,880

you get up here if you're healthy you're

144

00:06:36,629 --> 00:06:33,600

going to stay healthy the whole time

145

00:06:38,550 --> 00:06:36,639

but if something else doesn't feel right

146

00:06:41,749 --> 00:06:38,560

we have some medical training we can

147

00:06:43,430 --> 00:06:41,759

also talk to the doctors on the ground

148

00:06:45,430 --> 00:06:43,440

but you know right about now or maybe

149

00:06:47,189 --> 00:06:45,440

tomorrow i'm feeling pretty tired maybe

150

00:06:55,110 --> 00:06:47,199

i'll tell my commander i'm feeling sick

151
00:06:59,270 --> 00:06:57,430
hi randy

152
00:07:01,510 --> 00:06:59,280
i'm kindly

153
00:07:06,790 --> 00:07:01,520
can you play in space

154
00:07:10,629 --> 00:07:08,950
well we get to play we have some pretty

155
00:07:12,550 --> 00:07:10,639
neat toys

156
00:07:14,230 --> 00:07:12,560
here is a spaceship i used to build

157
00:07:16,710 --> 00:07:14,240
bottles when i was a kid

158
00:07:18,309 --> 00:07:16,720
except my models didn't float this is a

159
00:07:21,110 --> 00:07:18,319
model of our next spacecraft that's

160
00:07:23,350 --> 00:07:21,120
going to go out past uh beyond low earth

161
00:07:25,029 --> 00:07:23,360
orbit it's called orion so we can play

162
00:07:27,270 --> 00:07:25,039
with that

163
00:07:28,469 --> 00:07:27,280

i'll float that over here to joe

164

00:07:30,469 --> 00:07:28,479

then

165

00:07:32,629 --> 00:07:30,479

i also have i have a seven year old an

166

00:07:33,749 --> 00:07:32,639

11 year old and they had me bring one of

167

00:07:35,670 --> 00:07:33,759

these

168

00:07:37,510 --> 00:07:35,680

i don't know you ever seen one of those

169

00:07:39,589 --> 00:07:37,520

i think you might have

170

00:07:40,870 --> 00:07:39,599

noticed how it can spin without turning

171

00:07:44,309 --> 00:07:40,880

the inside

172

00:07:45,830 --> 00:07:44,319

then once we spin it

173

00:07:48,629 --> 00:07:45,840

it's pretty stable

174

00:07:50,869 --> 00:07:48,639

and we can move it around space station

175

00:08:00,500 --> 00:07:50,879

while it's spinning

176

00:08:00,510 --> 00:08:07,029

[Applause]

177

00:08:12,469 --> 00:08:10,150

hi joe i'm rem what does it feel like

178

00:08:17,189 --> 00:08:12,479

when you are space walking does it feel

179

00:08:20,230 --> 00:08:18,950

hey hey it feels

180

00:08:22,469 --> 00:08:20,240

awesome

181

00:08:25,270 --> 00:08:22,479

randy was out yesterday with mark and

182

00:08:26,629 --> 00:08:25,280

they did a space walk i did my first one

183

00:08:28,230 --> 00:08:26,639

many years ago

184

00:08:29,189 --> 00:08:28,240

and i'll be going out in a couple of

185

00:08:32,870 --> 00:08:29,199

weeks

186

00:08:36,070 --> 00:08:32,880

it is you know both scary exciting it's

187

00:08:38,070 --> 00:08:36,080

fun it's awesome it's a great experience

188

00:08:39,589 --> 00:08:38,080

but usually you know it is a serious

189

00:08:40,870 --> 00:08:39,599

thing because we're going outside of the

190

00:08:42,469 --> 00:08:40,880

space station

191

00:08:44,630 --> 00:08:42,479

just in our suits so it's like a little

192

00:08:46,389 --> 00:08:44,640

spaceship for us

193

00:08:48,310 --> 00:08:46,399

but i think everybody who's gone out and

194

00:08:49,750 --> 00:08:48,320

has done one has says it's one of the

195

00:08:52,230 --> 00:08:49,760

most just

196

00:08:54,230 --> 00:08:52,240

most excellent wonderful experiences of

197

00:08:55,430 --> 00:08:54,240

their life so it's pretty cool and

198

00:08:57,110 --> 00:08:55,440

hopefully you'll get the chance to do

199

00:09:01,430 --> 00:08:57,120

one someday because it's it's really

200

00:09:05,670 --> 00:09:03,990

hi randy i'm marilyn what is the

201
00:09:11,190 --> 00:09:05,680
funniest thing that has happened to you

202
00:09:14,550 --> 00:09:13,030
well joe of course

203
00:09:15,509 --> 00:09:14,560
he just got here

204
00:09:17,829 --> 00:09:15,519
now the

205
00:09:20,389 --> 00:09:17,839
the funniest thing is

206
00:09:22,150 --> 00:09:20,399
uh and most enjoyable things is you know

207
00:09:24,230 --> 00:09:22,160
being up here in zero gravity is a

208
00:09:26,710 --> 00:09:24,240
physically joyful feeling you know you

209
00:09:28,870 --> 00:09:26,720
realize that hey we're human beings we

210
00:09:30,870 --> 00:09:28,880
are we're made with sensors on us and

211
00:09:32,949 --> 00:09:30,880
the ability just to fly where we want

212
00:09:34,230 --> 00:09:32,959
and where we need to now we can just

213
00:09:36,230 --> 00:09:34,240

figure out what point we need to push

214

00:09:37,030 --> 00:09:36,240

off to go in a different direction and

215

00:09:38,630 --> 00:09:37,040

so

216

00:09:39,910 --> 00:09:38,640

the funniest and most enjoyable stuff is

217

00:09:41,190 --> 00:09:39,920

watching someone who's up here for the

218

00:09:43,509 --> 00:09:41,200

first time

219

00:09:45,430 --> 00:09:43,519

get used to it and the joy on their face

220

00:09:47,670 --> 00:09:45,440

as they move around and realize they can

221

00:09:49,910 --> 00:09:47,680

fly you know we all love playing in the

222

00:09:51,190 --> 00:09:49,920

pool and doing somersaults and floating

223

00:09:52,790 --> 00:09:51,200

well imagine be able to do that without

224

00:09:55,030 --> 00:09:52,800

having to hold your breath

225

00:09:57,269 --> 00:09:55,040

so that is certainly uh you know the

226

00:09:58,949 --> 00:09:57,279

funniest and most enjoyable thing is

227

00:10:01,269 --> 00:09:58,959

watching people enjoy this physical

228

00:10:04,790 --> 00:10:01,279

sensation of not having gravity hold you

229

00:10:14,310 --> 00:10:07,590

hi joe i'm lake how do you put out fires

230

00:10:14,320 --> 00:10:24,069

come on through paulo

231

00:10:28,949 --> 00:10:27,030

distracted me um so like i said we did

232

00:10:31,509 --> 00:10:28,959

uh studies in the past where we're

233

00:10:33,350 --> 00:10:31,519

trying to learn how fires behave

234

00:10:35,350 --> 00:10:33,360

but we have fire extinguishers just like

235

00:10:38,230 --> 00:10:35,360

you have down there and we actually have

236

00:10:40,470 --> 00:10:38,240

two types one is with water so if we

237

00:10:42,790 --> 00:10:40,480

were to have a fire here we could put it

238

00:10:45,990 --> 00:10:42,800

out with some water like a mist and then

239

00:10:48,710 --> 00:10:46,000

we also have co2 carbon dioxide so if we

240

00:10:51,430 --> 00:10:48,720

had a fire behind one of these panels

241

00:10:53,190 --> 00:10:51,440

we would spray that gas in there take

242

00:10:55,350 --> 00:10:53,200

away all the oxygen and hopefully put

243

00:11:00,150 --> 00:10:55,360

the fire out but we'll keep our fingers

244

00:11:03,990 --> 00:11:02,230

randy i'm sophia

245

00:11:06,310 --> 00:11:04,000

and i'm lizzy

246

00:11:07,990 --> 00:11:06,320

it's my birthday how do you celebrate

247

00:11:12,870 --> 00:11:08,000

birthdays in space

248

00:11:16,230 --> 00:11:14,630

lizzy and sophia good question because i

249

00:11:17,110 --> 00:11:16,240

just had my birthday less than a month

250

00:11:19,910 --> 00:11:17,120

ago

251
00:11:21,590 --> 00:11:19,920
um ice cream comes up on the spacecraft

252
00:11:23,750 --> 00:11:21,600
and so there wasn't one closer to my

253
00:11:25,750 --> 00:11:23,760
birthday where i had it actually on my

254
00:11:27,670 --> 00:11:25,760
birthday but before my birthday we did

255
00:11:29,590 --> 00:11:27,680
and it was birthday cake ice cream so

256
00:11:31,190 --> 00:11:29,600
that was really really good

257
00:11:33,269 --> 00:11:31,200
um but up here

258
00:11:36,069 --> 00:11:33,279
my wife sent up a package where i had a

259
00:11:37,750 --> 00:11:36,079
birthday hat with candles on top now it

260
00:11:39,590 --> 00:11:37,760
wasn't real candles so we hadn't had

261
00:11:41,990 --> 00:11:39,600
fire like joe talked about

262
00:11:43,509 --> 00:11:42,000
and a shirt there was a birthday shirt

263
00:11:45,030 --> 00:11:43,519

and i also got a gift from one of my

264

00:11:48,790 --> 00:11:45,040

russian crewmates that had our

265

00:11:50,790 --> 00:11:48,800

expedition um number and it had the 50

266

00:11:52,710 --> 00:11:50,800

instead of 53 and that was a present

267

00:11:54,550 --> 00:11:52,720

from him that was a very nice present

268

00:11:56,310 --> 00:11:54,560

and so we celebrated by having dinner

269

00:11:57,829 --> 00:11:56,320

together i got a chance to talk to

270

00:11:59,430 --> 00:11:57,839

people on the ground

271

00:12:06,150 --> 00:11:59,440

and they sang me happy birthday so it

272

00:12:10,629 --> 00:12:09,190

hi joe i'm brendan we grew tomato seeds

273

00:12:13,990 --> 00:12:10,639

that had been to space and they

274

00:12:15,750 --> 00:12:14,000

germinated faster than the earth seeds

275

00:12:17,829 --> 00:12:15,760

if a human being was born on the

276

00:12:19,430 --> 00:12:17,839

international space station would their

277

00:12:24,710 --> 00:12:19,440

body's growth be affected by

278

00:12:29,430 --> 00:12:27,350

you know that's a great question and we

279

00:12:31,670 --> 00:12:29,440

don't know for sure the answer to that

280

00:12:32,470 --> 00:12:31,680

but we know in the time that we're up

281

00:12:34,550 --> 00:12:32,480

here

282

00:12:36,550 --> 00:12:34,560

in these six months that our bodies do

283

00:12:38,710 --> 00:12:36,560

change and so we're doing a lot of

284

00:12:41,190 --> 00:12:38,720

medical tests while we're on the space

285

00:12:43,670 --> 00:12:41,200

station before we leave and when we get

286

00:12:45,829 --> 00:12:43,680

home to see how our bodies react and

287

00:12:47,430 --> 00:12:45,839

change while we're up here so i'm sure

288

00:12:49,590 --> 00:12:47,440

if we had somebody that was born in

289

00:12:51,430 --> 00:12:49,600

space i can guarantee you there would be

290

00:12:53,030 --> 00:12:51,440

some differences that we would notice

291

00:12:58,389 --> 00:12:53,040

but we just don't know yet what those

292

00:13:05,030 --> 00:13:01,430

hi randy i'm donovan have you ever seen

293

00:13:11,430 --> 00:13:05,040

space trash floating by is space trash a

294

00:13:15,350 --> 00:13:13,590

the the space trash that we see is on

295

00:13:17,030 --> 00:13:15,360

the inside and we generate it and we

296

00:13:19,269 --> 00:13:17,040

store it and then we send it back in our

297

00:13:23,350 --> 00:13:19,279

cargo vehicles

298

00:13:24,310 --> 00:13:23,360

one that brings actually land the other

299

00:13:25,509 --> 00:13:24,320

one's actually burnt up in the

300

00:13:27,269 --> 00:13:25,519

atmosphere

301
00:13:29,030 --> 00:13:27,279
so when you look up under the night sky

302
00:13:30,550 --> 00:13:29,040
and you see a shooting star

303
00:13:31,430 --> 00:13:30,560
it may not always be a shooting star it

304
00:13:32,629 --> 00:13:31,440
may be

305
00:13:34,069 --> 00:13:32,639
our trash

306
00:13:36,550 --> 00:13:34,079
now i think your question though is

307
00:13:38,310 --> 00:13:36,560
probably more for sp trash outside

308
00:13:41,590 --> 00:13:38,320
in in the orbit we're at low earth orbit

309
00:13:43,430 --> 00:13:41,600
about 250 miles or 400 kilometers um we

310
00:13:45,189 --> 00:13:43,440
have space trash from much higher orbits

311
00:13:46,389 --> 00:13:45,199
actually pass through and if it passes

312
00:13:48,629 --> 00:13:46,399
through gets close enough station we can

313
00:13:49,829 --> 00:13:48,639

maneuver to avoid it but out there in

314

00:13:52,150 --> 00:13:49,839

the outer areas where there's a lot of

315

00:13:53,910 --> 00:13:52,160

satellites there is a lot of trash and

316

00:13:56,069 --> 00:13:53,920

that's going to be a really really big

317

00:13:58,550 --> 00:13:56,079

problem we actually have the air force

318

00:14:00,389 --> 00:13:58,560

and we have the faa

319

00:14:01,670 --> 00:14:00,399

with radar they're trying to track all

320

00:14:03,269 --> 00:14:01,680

that stuff to make sure that we don't

321

00:14:05,030 --> 00:14:03,279

have an issue with where the people are

322

00:14:06,389 --> 00:14:05,040

but when we want to go to the moon we go

323

00:14:07,990 --> 00:14:06,399

to mars and go other places in the solar

324

00:14:10,069 --> 00:14:08,000

system we're going to have to go through

325

00:14:11,990 --> 00:14:10,079

that belt of trash and so certainly that

326

00:14:13,269 --> 00:14:12,000

is a concern that we didn't have 50

327

00:14:14,790 --> 00:14:13,279

years ago that we're going to worry

328

00:14:17,030 --> 00:14:14,800

about having to figure out how to clear

329

00:14:19,430 --> 00:14:17,040

up that trash and keep that area clean

330

00:14:25,030 --> 00:14:19,440

so we don't have a high thread area to

331

00:14:29,910 --> 00:14:27,750

hey joe i'm andrew would it be possible

332

00:14:36,870 --> 00:14:29,920

to launch missions to other planets and

333

00:14:41,590 --> 00:14:38,790

hey andrew so

334

00:14:43,509 --> 00:14:41,600

the iss is really a

335

00:14:45,110 --> 00:14:43,519

it's a working laboratory and that's

336

00:14:46,790 --> 00:14:45,120

what we're doing up here most of the day

337

00:14:49,509 --> 00:14:46,800

we have this micro

338

00:14:51,430 --> 00:14:49,519

gravity environment so it's not really

339

00:14:53,110 --> 00:14:51,440

made for us to

340

00:14:55,189 --> 00:14:53,120

launch other vehicles they're going to

341

00:14:57,990 --> 00:14:55,199

go to other planets from here we do

342

00:15:00,389 --> 00:14:58,000

launch some small satellites for some

343

00:15:03,110 --> 00:15:00,399

educational and research purposes

344

00:15:05,509 --> 00:15:03,120

but you know the idea of having a space

345

00:15:07,590 --> 00:15:05,519

station in which we can launch vehicles

346

00:15:09,750 --> 00:15:07,600

to other planets is one that nasa is

347

00:15:11,990 --> 00:15:09,760

thinking about and working towards so i

348

00:15:13,829 --> 00:15:12,000

think it's an exciting time and

349

00:15:16,150 --> 00:15:13,839

hopefully you guys there that are into

350

00:15:18,550 --> 00:15:16,160

the sciences can think about how we can

351

00:15:20,790 --> 00:15:18,560

do that because the goal is for us to go

352

00:15:22,470 --> 00:15:20,800

much much further than we are today so

353

00:15:24,310 --> 00:15:22,480

hopefully we'll see that

354

00:15:25,590 --> 00:15:24,320

here in our lifetimes and have some

355

00:15:26,470 --> 00:15:25,600

space stations out there that are

356

00:15:27,750 --> 00:15:26,480

building

357

00:15:30,710 --> 00:15:27,760

spaceships and going to different

358

00:15:39,269 --> 00:15:34,389

hi randy i'm sophie are you ever scared

359

00:15:42,710 --> 00:15:41,509

are you ever scared good question

360

00:15:45,430 --> 00:15:42,720

because

361

00:15:46,310 --> 00:15:45,440

i think at some point everybody's scared

362

00:15:49,590 --> 00:15:46,320

um

363

00:15:51,749 --> 00:15:49,600

but as you are learning

364

00:15:53,590 --> 00:15:51,759

bravery is not the absence of being

365

00:15:55,990 --> 00:15:53,600

scared or being feared it's overcoming

366

00:15:57,990 --> 00:15:56,000

being scared and certainly the first

367

00:16:00,069 --> 00:15:58,000

time you know you're on a spacewalk and

368

00:16:01,509 --> 00:16:00,079

the first time it goes tonight and

369

00:16:03,749 --> 00:16:01,519

you're out there hanging on the space

370

00:16:05,189 --> 00:16:03,759

station going around the earth at 17 500

371

00:16:07,670 --> 00:16:05,199

miles an hour

372

00:16:08,710 --> 00:16:07,680

and you're outside 250 miles above the

373

00:16:10,710 --> 00:16:08,720

earth

374

00:16:13,670 --> 00:16:10,720

that can be a little scary but what we

375

00:16:15,829 --> 00:16:13,680

do is we try and be brave and we go

376

00:16:17,590 --> 00:16:15,839

ahead and remember the procedures that

377

00:16:19,110 --> 00:16:17,600

we were taught the training that we had

378

00:16:21,189 --> 00:16:19,120

and we just keep working little by

379

00:16:22,389 --> 00:16:21,199

little step by step and that's a way to

380

00:16:28,230 --> 00:16:22,399

not be scared

381

00:16:32,949 --> 00:16:30,629

hi joe i'm maggie

382

00:16:40,069 --> 00:16:32,959

how has your perspective on life changed

383

00:16:44,790 --> 00:16:43,030

wow that's a that's a tough question

384

00:16:46,949 --> 00:16:44,800

you know when you get to the space

385

00:16:49,189 --> 00:16:46,959

station for the first time and you look

386

00:16:51,910 --> 00:16:49,199

back on our beautiful planet

387

00:16:53,590 --> 00:16:51,920

you can't help but just change the way

388

00:16:56,150 --> 00:16:53,600

you think about certain things we all

389

00:16:57,749 --> 00:16:56,160

grow up i live in my city

390

00:16:59,910 --> 00:16:57,759

i live in this county i live in the

391

00:17:01,509 --> 00:16:59,920

state i live in the united states but

392

00:17:04,309 --> 00:17:01,519

when you're off of earth and you're

393

00:17:06,069 --> 00:17:04,319

looking down on the entire planet now

394

00:17:08,309 --> 00:17:06,079

instead of that one house that you live

395

00:17:10,630 --> 00:17:08,319

in you're looking at the entire

396

00:17:13,189 --> 00:17:10,640

sphere of where humans live

397

00:17:15,029 --> 00:17:13,199

and you see how we're all interconnected

398

00:17:17,510 --> 00:17:15,039

how we just have this thin layer that's

399

00:17:19,590 --> 00:17:17,520

keeping us safe from space

400

00:17:22,150 --> 00:17:19,600

and so you know i look and say we're

401
00:17:24,150 --> 00:17:22,160
fortunate to have such a beautiful home

402
00:17:25,350 --> 00:17:24,160
and then i also think this is all of our

403
00:17:27,029 --> 00:17:25,360
planet so

404
00:17:29,909 --> 00:17:27,039
it's something that we have to work

405
00:17:32,070 --> 00:17:29,919
together to preserve it um and we're

406
00:17:34,150 --> 00:17:32,080
just all one people and you just it

407
00:17:40,710 --> 00:17:34,160
really stands out when you see the

408
00:17:44,710 --> 00:17:42,470
hi wendy

409
00:17:50,150 --> 00:17:44,720
i'm skyler

410
00:17:54,630 --> 00:17:50,160
can you do a one finger push up can you

411
00:17:59,029 --> 00:17:56,390
all right scott we'll go ahead and show

412
00:18:00,390 --> 00:17:59,039
you what we can do up here and i'll have

413
00:18:10,230 --> 00:18:00,400

astronaut joe

414

00:18:13,510 --> 00:18:11,909

so he's doing the regular two-handed

415

00:18:15,590 --> 00:18:13,520

push-ups like you guys would do down

416

00:18:18,549 --> 00:18:15,600

there

417

00:18:21,830 --> 00:18:18,559

oh he's getting strong he can do one arm

418

00:18:28,870 --> 00:18:24,390

one finger i see it

419

00:18:41,190 --> 00:18:32,390

no hands so yes to answer your question

420

00:18:50,230 --> 00:18:44,549

hey joe i'm taylor do you use artificial

421

00:18:54,630 --> 00:18:52,470

so we don't have this cool button that

422

00:18:57,110 --> 00:18:54,640

we could flip that would make artificial

423

00:18:59,510 --> 00:18:57,120

gravity for us but we do have

424

00:19:01,990 --> 00:18:59,520

centrifuges up here so we can spin

425

00:19:04,870 --> 00:19:02,000

things and depending on how fast we spin

426

00:19:08,310 --> 00:19:04,880

it it can simulate different types of

427

00:19:10,150 --> 00:19:08,320

gravity so we do have that up here

428

00:19:11,270 --> 00:19:10,160

also what's kind of cool is if you have

429

00:19:14,630 --> 00:19:11,280

a bag

430

00:19:16,230 --> 00:19:14,640

that's full of water and air and a lot

431

00:19:18,870 --> 00:19:16,240

of times you want to get that air out of

432

00:19:20,630 --> 00:19:18,880

it you have to spin that around

433

00:19:24,150 --> 00:19:20,640

in order to get the air and the water

434

00:19:26,630 --> 00:19:24,160

separated and so we use that as well so

435

00:19:28,950 --> 00:19:26,640

no artificial gravity button that we

436

00:19:33,350 --> 00:19:28,960

have but we do have ways to put a little

437

00:19:41,990 --> 00:19:36,150

hi randy i'm sean what did the solar

438

00:19:45,909 --> 00:19:44,390

the solar eclipse was amazing to see you

439

00:19:47,669 --> 00:19:45,919

know we're used to looking down at the

440

00:19:50,070 --> 00:19:47,679

earth with the browns and the blues and

441

00:19:51,590 --> 00:19:50,080

then the whites of the clouds and for a

442

00:19:53,350 --> 00:19:51,600

lot of the solar eclipse we could see

443

00:19:55,909 --> 00:19:53,360

the the solar eclipse on the ground when

444

00:19:58,230 --> 00:19:55,919

it was coming over the united states um

445

00:20:00,710 --> 00:19:58,240

it was just this big black dark hole and

446

00:20:02,230 --> 00:20:00,720

so the clouds are so bright and white it

447

00:20:05,190 --> 00:20:02,240

really made the black stand out we were

448

00:20:08,070 --> 00:20:05,200

so surprised how huge the shadow of the

449

00:20:10,230 --> 00:20:08,080

moon was and how it made stuff on the

450

00:20:12,549 --> 00:20:10,240

far side of the shadow look so different

451
00:20:13,990 --> 00:20:12,559
um and then we also had two passes we

452
00:20:15,990 --> 00:20:14,000
were over the pacific ocean and over the

453
00:20:18,549 --> 00:20:16,000
atlantic where we could look up and see

454
00:20:20,070 --> 00:20:18,559
the sun at the maximum eclipse point and

455
00:20:21,909 --> 00:20:20,080
special filters you know glasses like

456
00:20:23,909 --> 00:20:21,919
you guys had on the ground and same kind

457
00:20:25,990 --> 00:20:23,919
of things on our cameras watching the

458
00:20:27,430 --> 00:20:26,000
sun go over and just eclipse the moon

459
00:20:29,830 --> 00:20:27,440
and just leave a sliver of the moon

460
00:20:31,190 --> 00:20:29,840
showing that was really neat to see too

461
00:20:36,390 --> 00:20:31,200
so hopefully you got to see those

462
00:20:41,510 --> 00:20:39,669
well joe and randy thank you so much for

463
00:20:44,710 --> 00:20:41,520

spending this time with us

464

00:20:46,470 --> 00:20:44,720

you are so inspiring we are so excited

465

00:20:48,390 --> 00:20:46,480

to be able to speak with you and get

466

00:20:50,230 --> 00:20:48,400

through all of our questions

467

00:20:56,230 --> 00:20:50,240

we will pray for you as you continue

468

00:21:00,310 --> 00:20:57,990

thank you very much it's been a pleasure

469

00:21:02,230 --> 00:21:00,320

to be with you all today and as a former

470

00:21:04,310 --> 00:21:02,240

educator it's always cool to be back in

471

00:21:08,630 --> 00:21:04,320

school so thanks for joining us on the

472

00:21:14,070 --> 00:21:10,710

station this is houston acr that

473

00:21:18,310 --> 00:21:15,750

and thank you to all participants from

474

00:21:20,470 --> 00:21:18,320

gaylord st mary's cathedral station we

475

00:21:27,120 --> 00:21:20,480

are now resuming operational audio

