



1
00:00:37,510 --> 00:00:33,590
station this is houston are you ready

2
00:00:37,520 --> 00:00:41,190
houston we are ready for the event

3
00:00:44,790 --> 00:00:42,950
shawn mendes this is mission control

4
00:00:46,150 --> 00:00:44,800
houston please call station for a voice

5
00:00:48,630 --> 00:00:46,160
check

6
00:00:52,389 --> 00:00:48,640
station this is shawn mendes how do you

7
00:00:56,830 --> 00:00:54,630
sean we have you loud and clear welcome

8
00:00:59,910 --> 00:00:56,840
to the international space

9
00:01:02,150 --> 00:00:59,920
station it is such an honor to speak

10
00:01:04,869 --> 00:01:02,160
with you guys i feel so giddy and

11
00:01:06,149 --> 00:01:04,879
excited right now um i just want to say

12
00:01:08,550 --> 00:01:06,159
i'm so

13
00:01:10,149 --> 00:01:08,560

happy uh and excited to be doing this to

14

00:01:12,149 --> 00:01:10,159

help educate young people about our

15

00:01:14,950 --> 00:01:12,159

planet right now this is really really

16

00:01:16,710 --> 00:01:14,960

spectacular

17

00:01:18,390 --> 00:01:16,720

um before we get started i know that

18

00:01:19,910 --> 00:01:18,400

there's a lot of new fans and viewers

19

00:01:22,149 --> 00:01:19,920

watching right now so

20

00:01:26,230 --> 00:01:22,159

would you guys all mind introducing

21

00:01:30,950 --> 00:01:28,950

absolutely and happy earth day i'm dr

22

00:01:35,270 --> 00:01:30,960

shannon walker the current commander of

23

00:01:39,830 --> 00:01:37,510

hi i'm mike hopkins a colonel united

24

00:01:41,190 --> 00:01:39,840

states space force as well as a nasa

25

00:01:44,230 --> 00:01:41,200

astronaut i'm the commander of the

26

00:01:45,590 --> 00:01:44,240

spacex crew dragon resilience and a

27

00:01:49,510 --> 00:01:45,600

flight engineer here on the

28

00:01:54,550 --> 00:01:52,469

hi happy hour's day konichiwa

29

00:01:58,230 --> 00:01:54,560

soichinovuchi japanese space agency

30

00:02:01,670 --> 00:02:00,310

happy earth day commander victor glover

31

00:02:03,510 --> 00:02:01,680

flight engineer aboard the international

32

00:02:06,310 --> 00:02:03,520

space station and pilot of crew dragon

33

00:02:12,070 --> 00:02:08,949

happy earth day my name is mark vande i

34

00:02:19,750 --> 00:02:12,080

am an expedition 65 crew member nasa

35

00:02:24,390 --> 00:02:22,070

amazing i know everybody but victor has

36

00:02:26,070 --> 00:02:24,400

been to space more than once

37

00:02:27,990 --> 00:02:26,080

but i also know that soichi has set a

38

00:02:31,589 --> 00:02:28,000

record for the longest time between

39

00:02:33,430 --> 00:02:31,599

space walks so soichi congratulations

40

00:02:34,309 --> 00:02:33,440

um i just have a quick question i want

41

00:02:36,790 --> 00:02:34,319

to know

42

00:02:38,470 --> 00:02:36,800

how has your perspective of earth

43

00:02:40,150 --> 00:02:38,480

changed after viewing it through the

44

00:02:42,150 --> 00:02:40,160

cupola

45

00:02:43,830 --> 00:02:42,160

and victor since this is your first

46

00:02:45,190 --> 00:02:43,840

space flight what are some of the

47

00:02:46,869 --> 00:02:45,200

impressions you'll take back with you

48

00:02:52,070 --> 00:02:46,879

from seeing earth from space for the

49

00:02:57,270 --> 00:02:54,470

yeah it's um interesting question how

50

00:02:59,190 --> 00:02:57,280

the earth has changed um over the

51
00:03:01,270 --> 00:02:59,200
it's actually been 10 years since i've

52
00:03:03,589 --> 00:03:01,280
been here and so

53
00:03:05,350 --> 00:03:03,599
a couple of things one thing

54
00:03:07,110 --> 00:03:05,360
when i was here last it was over the

55
00:03:09,110 --> 00:03:07,120
summer time this time it's been over the

56
00:03:10,630 --> 00:03:09,120
winter time and so the biggest

57
00:03:12,070 --> 00:03:10,640
difference i've seen is that the

58
00:03:13,830 --> 00:03:12,080
northern hemisphere was covered with

59
00:03:15,509 --> 00:03:13,840
snow and ice most of the time

60
00:03:20,949 --> 00:03:15,519
this time whereas last time it was all

61
00:03:25,350 --> 00:03:23,509
sean thank you for the question and um

62
00:03:27,270 --> 00:03:25,360
wow seeing earth from here is is quite

63
00:03:28,789 --> 00:03:27,280

spectacular in fact it's the most

64

00:03:30,630 --> 00:03:28,799

beautiful thing that i've seen up here

65

00:03:33,110 --> 00:03:30,640

looking out at the stars is great but

66

00:03:35,910 --> 00:03:33,120

seeing the earth is just so amazing and

67

00:03:37,750 --> 00:03:35,920

it also makes me realize how important

68

00:03:44,070 --> 00:03:37,760

it is that we do all that we can to take

69

00:03:48,309 --> 00:03:45,270

you know

70

00:03:50,789 --> 00:03:48,319

it's so incredible i'm literally here

71

00:03:52,470 --> 00:03:50,799

just like i cannot believe you guys are

72

00:03:54,390 --> 00:03:52,480

all the way up there it's i'm really

73

00:03:56,710 --> 00:03:54,400

amazing thank you again for for letting

74

00:03:58,550 --> 00:03:56,720

me hear to speak with you guys but um i

75

00:03:59,750 --> 00:03:58,560

know we have a ton of questions from

76
00:04:00,470 --> 00:03:59,760
followers and young people around the

77
00:04:02,070 --> 00:04:00,480
world

78
00:04:04,070 --> 00:04:02,080
about earth science and about the

79
00:04:05,990 --> 00:04:04,080
international space station so i'm just

80
00:04:07,429 --> 00:04:06,000
going to start with the questions so we

81
00:04:10,070 --> 00:04:07,439
have the first one and it comes from

82
00:04:11,910 --> 00:04:10,080
jason burton on twitter and jason says

83
00:04:14,630 --> 00:04:11,920
how long does it take to get to the

84
00:04:24,390 --> 00:04:14,640
space station and what speed is achieved

85
00:04:24,400 --> 00:04:30,710
mark your mic is off

86
00:04:30,720 --> 00:04:34,070
now with the microphone on

87
00:04:36,790 --> 00:04:35,030
um

88
00:04:38,950 --> 00:04:36,800

right now we're traveling five miles a

89

00:04:41,350 --> 00:04:38,960

second uh that means we travel or once

90

00:04:44,390 --> 00:04:41,360

around the planet every 90 minutes so

91

00:04:45,670 --> 00:04:44,400

every 24 hours we had 16 sunrises and 16

92

00:04:47,909 --> 00:04:45,680

sunsets

93

00:04:49,189 --> 00:04:47,919

for me on my the spacecraft that i used

94

00:04:51,430 --> 00:04:49,199

to get up here

95

00:04:55,830 --> 00:04:51,440

we arrived within uh three hours so

96

00:04:59,510 --> 00:04:57,749

and for the rest of us the the four of

97

00:05:02,390 --> 00:04:59,520

us we came up on again crew dragon

98

00:05:04,230 --> 00:05:02,400

resilience and uh you know the launch

99

00:05:06,390 --> 00:05:04,240

actually took about eight eight and a

100

00:05:09,110 --> 00:05:06,400

half minutes i think from the time we uh

101

00:05:11,350 --> 00:05:09,120

lit the rocket until we were in space

102

00:05:14,390 --> 00:05:11,360

and and then after that it took another

103

00:05:16,310 --> 00:05:14,400

24 27 hours before we actually docked to

104

00:05:18,310 --> 00:05:16,320

the international space station so we

105

00:05:20,390 --> 00:05:18,320

had a little bit of time on board uh

106

00:05:22,950 --> 00:05:20,400

resilience to have a few meals have us

107

00:05:24,950 --> 00:05:22,960

do a nap and things of that nature but

108

00:05:26,310 --> 00:05:24,960

it was actually very comfortable and but

109

00:05:31,270 --> 00:05:26,320

we were very excited when we got on

110

00:05:35,670 --> 00:05:33,990

that is so amazing um our next question

111

00:05:40,070 --> 00:05:35,680

we have is from jaden it's gonna be a

112

00:05:45,749 --> 00:05:44,629

my name's david i'm free mr astronaut

113

00:05:51,510 --> 00:05:45,759

i don't

114

00:05:56,629 --> 00:05:53,749

jaden that is an excellent question and

115

00:05:57,909 --> 00:05:56,639

you know there's ms astronaut as well

116

00:06:00,150 --> 00:05:57,919

um

117

00:06:02,629 --> 00:06:00,160

energy can be produced from a variety of

118

00:06:04,790 --> 00:06:02,639

ways you can use solar energy you can

119

00:06:07,430 --> 00:06:04,800

get energy from water you can use

120

00:06:09,670 --> 00:06:07,440

gasoline you can burn coal there's even

121

00:06:12,070 --> 00:06:09,680

nuclear energy well in the space station

122

00:06:14,469 --> 00:06:12,080

what we have the most of is sunlight and

123

00:06:18,950 --> 00:06:14,479

so that is why we use solar energy to

124

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

amazing

125

00:06:28,309 --> 00:06:23,120

super cute our next question is from

126

00:06:33,029 --> 00:06:31,110

hi my name is swan i am 10 years old and

127

00:06:34,790 --> 00:06:33,039

my question is what are some earth

128

00:06:42,550 --> 00:06:34,800

experiments you can do from the space

129

00:06:47,430 --> 00:06:44,629

so on my previous flight we did an

130

00:06:50,150 --> 00:06:47,440

experiment with trying to understand the

131

00:06:52,150 --> 00:06:50,160

sun's energy input into the earth and

132

00:06:53,909 --> 00:06:52,160

during expedition 65 we're going to do

133

00:06:55,189 --> 00:06:53,919

an experiment on

134

00:06:56,469 --> 00:06:55,199

cotton

135

00:06:58,469 --> 00:06:56,479

root systems we're trying to get a

136

00:07:00,230 --> 00:06:58,479

better understanding about how

137

00:07:01,270 --> 00:07:00,240

environmental factors like being in

138

00:07:03,990 --> 00:07:01,280

orbit

139

00:07:04,870 --> 00:07:04,000

the genes of seeds all those things

140

00:07:06,950 --> 00:07:04,880

affect

141

00:07:08,629 --> 00:07:06,960

the resilience of plants

142

00:07:10,950 --> 00:07:08,639

so we're really curious to see how those

143

00:07:13,909 --> 00:07:10,960

results work out and there's lots more

144

00:07:17,110 --> 00:07:15,189

and you know one of the other things we

145

00:07:19,830 --> 00:07:17,120

get to do in terms of experiments for

146

00:07:22,150 --> 00:07:19,840

the earth is we get to take pictures now

147

00:07:23,589 --> 00:07:22,160

that uh they call it work but it's also

148

00:07:26,150 --> 00:07:23,599

a lot of fun uh when we get to take

149

00:07:27,670 --> 00:07:26,160

pictures of the earth and uh and then

150

00:07:28,870 --> 00:07:27,680

people on the ground can analyze those

151

00:07:30,309 --> 00:07:28,880

pictures and and get a better

152

00:07:34,070 --> 00:07:30,319

understanding of what's going on down

153

00:07:39,029 --> 00:07:35,830

i love how you guys passed the mic it's

154

00:07:41,670 --> 00:07:39,039

just like a subtle toss across

155

00:07:43,990 --> 00:07:41,680

so the next question is from

156

00:07:46,629 --> 00:07:44,000

merit on twitter and merit says what

157

00:07:59,589 --> 00:07:46,639

types of projects will the expedition 65

158

00:08:03,589 --> 00:08:01,350

oh gosh we talked about solar arrays a

159

00:08:05,110 --> 00:08:03,599

little while ago we've got some improved

160

00:08:08,070 --> 00:08:05,120

roll out solar arrays that we're going

161

00:08:11,270 --> 00:08:08,080

to install continue to install on evas

162

00:08:13,110 --> 00:08:11,280

coming up so we're actually going to

163

00:08:15,589 --> 00:08:13,120

do a number of spacewalks i think the

164

00:08:17,909 --> 00:08:15,599

plan has four during exhibition 65 to

165

00:08:25,990 --> 00:08:17,919

make progress towards uh improving our

166

00:08:30,150 --> 00:08:27,430

thank you now we have

167

00:08:36,149 --> 00:08:30,160

raya with a very very important question

168

00:08:39,750 --> 00:08:37,909

i think there's an image

169

00:08:42,790 --> 00:08:39,760

do i have to click on the image

170

00:08:45,430 --> 00:08:42,800

i can i can read it rya says

171

00:08:52,829 --> 00:08:45,440

in what ways can a student contribute in

172

00:08:57,269 --> 00:08:55,509

protection you know one of the most

173

00:08:59,350 --> 00:08:57,279

important things you know we talk about

174

00:09:01,110 --> 00:08:59,360

recycling and and things like that but

175

00:09:03,110 --> 00:09:01,120

up here we have to also think about the

176

00:09:05,350 --> 00:09:03,120

way that we live and so all of us can

177

00:09:07,269 --> 00:09:05,360

consider how we live and what we consume

178

00:09:09,750 --> 00:09:07,279

and it's not just important to recycle

179

00:09:11,030 --> 00:09:09,760

recycling is important but also to reuse

180

00:09:14,310 --> 00:09:11,040

and i think that's something we do

181

00:09:16,550 --> 00:09:14,320

really well up here we recycle water we

182

00:09:18,230 --> 00:09:16,560

repurpose things like packaging

183

00:09:19,430 --> 00:09:18,240

to to use it for other

184

00:09:21,750 --> 00:09:19,440

purposes

185

00:09:23,590 --> 00:09:21,760

and then in reducing as well when we can

186

00:09:25,590 --> 00:09:23,600

reducing the things that we use but also

187

00:09:27,110 --> 00:09:25,600

reducing the things that we use because

188

00:09:28,710 --> 00:09:27,120

of the impact that the waste can have on

189

00:09:32,070 --> 00:09:28,720

the planet so that's something that we

190

00:09:33,829 --> 00:09:32,080

all can do better to take care of earth

191

00:09:34,870 --> 00:09:33,839

i think there's some other things to do

192

00:09:36,870 --> 00:09:34,880

as well

193

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

nasa's got a lot of ways that students

194

00:09:42,630 --> 00:09:39,519

can participate in what we call citizen

195

00:09:44,150 --> 00:09:42,640

um science and so nasa's got projects

196

00:09:47,350 --> 00:09:44,160

out there that you can go to at

197

00:09:51,829 --> 00:09:49,509

and uh look at things because we are

198

00:09:53,750 --> 00:09:51,839

weird we need people all over the world

199

00:09:55,990 --> 00:09:53,760

to collect data for us and then other

200

00:09:58,070 --> 00:09:56,000

researchers take all that data such as

201
00:10:01,190 --> 00:09:58,080
the number of clouds how high the trees

202
00:10:03,110 --> 00:10:01,200
are when flowers start to bloom and uh

203
00:10:05,590 --> 00:10:03,120
they can understand what's happening

204
00:10:07,829 --> 00:10:05,600
around the world and then also if you

205
00:10:09,910 --> 00:10:07,839
are a little bit older you can even work

206
00:10:13,509 --> 00:10:09,920
for nasa come work for us because we do

207
00:10:16,310 --> 00:10:13,519
a lot of clients climate science

208
00:10:20,949 --> 00:10:16,320
you guys do a lot of cool stuff um the

209
00:10:26,470 --> 00:10:22,310
um

210
00:10:29,110 --> 00:10:26,480
hi my name is hank and i am almost seven

211
00:10:39,829 --> 00:10:29,120
years old and my question is can you

212
00:10:44,630 --> 00:10:41,829
okay thanks for the very good question

213
00:10:46,870 --> 00:10:44,640

yes we can still study ocean from space

214

00:10:49,829 --> 00:10:46,880

actually this is the best place on earth

215

00:10:52,310 --> 00:10:49,839

to study ocean every day

216

00:10:53,990 --> 00:10:52,320

you know i would say more than half of

217

00:10:56,470 --> 00:10:54,000

the time we look out the window that's

218

00:10:59,110 --> 00:10:56,480

ocean and it's not boring actually every

219

00:11:01,509 --> 00:10:59,120

day is a different and a different color

220

00:11:02,630 --> 00:11:01,519

different wind and different clouds so

221

00:11:04,550 --> 00:11:02,640

it's so

222

00:11:06,310 --> 00:11:04,560

fascinating actually we take a lot of

223

00:11:07,190 --> 00:11:06,320

pictures of the ocean so hopefully that

224

00:11:20,069 --> 00:11:07,200

the

225

00:11:23,509 --> 00:11:22,310

hi my name is lenny i'm from bear

226

00:11:25,190 --> 00:11:23,519

delaware

227

00:11:27,350 --> 00:11:25,200

my question is

228

00:11:28,389 --> 00:11:27,360

can you say a volcano one thing from

229

00:11:31,030 --> 00:11:28,399

space

230

00:11:32,710 --> 00:11:31,040

my island is being affected by a volcano

231

00:11:36,949 --> 00:11:32,720

right now

232

00:11:39,910 --> 00:11:38,550

well thank you for that great question

233

00:11:42,790 --> 00:11:39,920

and that's great to hear your voice up

234

00:11:44,550 --> 00:11:42,800

here so we actually can see volcanoes as

235

00:11:46,230 --> 00:11:44,560

mark mentioned earlier we rotate around

236

00:11:48,550 --> 00:11:46,240

the earth once every 90 minutes so it

237

00:11:50,470 --> 00:11:48,560

depends on where we are in our orbit but

238

00:11:51,829 --> 00:11:50,480

we are able to see them and we're also

239

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

able to see the effects that they can

240

00:11:56,310 --> 00:11:53,680

have just last week we were trying to

241

00:11:58,470 --> 00:11:56,320

get photos of the plume in the ash in

242

00:11:59,829 --> 00:11:58,480

the atmosphere because we're so high up

243

00:12:03,750 --> 00:11:59,839

that we can see it from this unique

244

00:12:08,310 --> 00:12:05,590

yeah actually that's very good

245

00:12:10,310 --> 00:12:08,320

good thing so our intention is to

246

00:12:12,629 --> 00:12:10,320

capture all the natural disasters

247

00:12:15,590 --> 00:12:12,639

happening on the ground and actually

248

00:12:17,910 --> 00:12:15,600

ionize more like a volcano hunters so we

249

00:12:20,949 --> 00:12:17,920

are catching all the volcanoes i got the

250

00:12:23,110 --> 00:12:20,959

mount autonomy in italy and volcano in

251
00:12:24,389 --> 00:12:23,120
kamchatka and he's looking for the

252
00:12:29,509 --> 00:12:24,399
caribbean but

253
00:12:33,509 --> 00:12:31,990
volcano hunters it's so good

254
00:12:35,590 --> 00:12:33,519
um

255
00:12:37,829 --> 00:12:35,600
so obviously food is such an important

256
00:12:41,190 --> 00:12:37,839
part of our daily lives as people of

257
00:12:43,990 --> 00:12:41,200
earth so floyd on twitter wants to know

258
00:12:49,430 --> 00:12:44,000
if any of you are vegetarian and if so

259
00:12:54,069 --> 00:12:52,069
now that is a great question i think

260
00:12:55,590 --> 00:12:54,079
right now we don't have any vegetarians

261
00:12:57,670 --> 00:12:55,600
in space but i will tell you that

262
00:12:59,350 --> 00:12:57,680
vegetables are my favorite thing to eat

263
00:13:01,430 --> 00:12:59,360

and so

264

00:13:03,829 --> 00:13:01,440

we eat a lot of vegetables up here and

265

00:13:05,269 --> 00:13:03,839

we even grow some some plants up here

266

00:13:07,430 --> 00:13:05,279

because one of the things we need to

267

00:13:09,750 --> 00:13:07,440

understand is if we're going to live in

268

00:13:11,509 --> 00:13:09,760

space for longer longer periods of time

269

00:13:13,269 --> 00:13:11,519

or if we're going to other places the

270

00:13:15,269 --> 00:13:13,279

moon or mars we're going to need to be

271

00:13:21,430 --> 00:13:15,279

able to grow our food and so we study

272

00:13:27,509 --> 00:13:24,150

the next absolutely adorable question is

273

00:13:30,150 --> 00:13:28,949

hi i'm

274

00:13:32,389 --> 00:13:30,160

five

275

00:13:38,310 --> 00:13:32,399

i keep looking for unicorns or not but

276

00:13:44,790 --> 00:13:41,670

have we seen any unicorns in space well

277

00:13:46,310 --> 00:13:44,800

so far the answer is no we have not seen

278

00:13:48,629 --> 00:13:46,320

any unicorns up here but we're going to

279

00:13:50,550 --> 00:13:48,639

keep looking and you know one place that

280

00:13:52,949 --> 00:13:50,560

we might actually have our best chance

281

00:13:54,949 --> 00:13:52,959

of seeing a unicorn is have you ever

282

00:13:57,030 --> 00:13:54,959

just laid out in your backyard and

283

00:13:58,389 --> 00:13:57,040

watched the clouds go by and you can see

284

00:13:59,910 --> 00:13:58,399

shapes up there

285

00:14:01,509 --> 00:13:59,920

well i tell you what we see a lot of

286

00:14:03,670 --> 00:14:01,519

clouds up here and i think we're all

287

00:14:05,189 --> 00:14:03,680

going to take an extra special look and

288

00:14:09,509 --> 00:14:05,199

see if we can't see a unicorn in the

289

00:14:14,389 --> 00:14:12,710

i'll be looking for some unicorns too

290

00:14:16,629 --> 00:14:14,399

so we imagine you guys get to see some

291

00:14:18,389 --> 00:14:16,639

incredible things none of us on earth

292

00:14:20,870 --> 00:14:18,399

could ever even imagine

293

00:14:23,910 --> 00:14:20,880

so our next question comes from sophia

294

00:14:29,269 --> 00:14:26,790

hi nasa i'm sophia and i'm in seventh

295

00:14:31,350 --> 00:14:29,279

grade and here's my question

296

00:14:34,550 --> 00:14:31,360

what is the most amazing thing that you

297

00:14:41,829 --> 00:14:34,560

can see on earth from space that you

298

00:14:45,910 --> 00:14:43,670

sophia that is a great question and i

299

00:14:47,350 --> 00:14:45,920

would say it was actually the very first

300

00:14:49,590 --> 00:14:47,360

view that i had when i looked out the

301
00:14:52,710 --> 00:14:49,600
window of crew dragon resilience and i

302
00:14:54,710 --> 00:14:52,720
could see so much of the earth you know

303
00:14:56,710 --> 00:14:54,720
humankind we invented telescopes and

304
00:14:58,790 --> 00:14:56,720
microscopes so that we could see things

305
00:15:01,189 --> 00:14:58,800
at our own level with our own eyes and

306
00:15:03,829 --> 00:15:01,199
so to be able to see an entire country

307
00:15:05,590 --> 00:15:03,839
or an entire ocean with my own eyes was

308
00:15:07,269 --> 00:15:05,600
truly amazing and so

309
00:15:12,069 --> 00:15:07,279
i really wish that more people could get

310
00:15:16,470 --> 00:15:13,750
also another thing that's amazing is we

311
00:15:18,310 --> 00:15:16,480
get to see the top of the atmosphere so

312
00:15:20,389 --> 00:15:18,320
looking at space

313
00:15:23,189 --> 00:15:20,399

the atmosphere looks like a thin puddle

314

00:15:25,350 --> 00:15:23,199

of of atmosphere on top of the

315

00:15:27,990 --> 00:15:25,360

this beautiful rock we call home it

316

00:15:32,870 --> 00:15:28,000

seems like a very precious layer

317

00:15:32,880 --> 00:15:38,710

next we have a question from julian

318

00:15:45,189 --> 00:15:41,910

happy earth day my name is joanne

319

00:15:47,910 --> 00:15:45,199

i'm four and a half years old

320

00:15:59,749 --> 00:15:47,920

my question is what is urban summer

321

00:16:04,470 --> 00:16:02,629

julian that's a great question and um

322

00:16:06,870 --> 00:16:04,480

you know i would say

323

00:16:09,110 --> 00:16:06,880

a short answer is that it's because we

324

00:16:12,230 --> 00:16:09,120

have so much water on the planet and

325

00:16:14,870 --> 00:16:12,240

clouds are one way that water is able to

326

00:16:17,749 --> 00:16:14,880

move around the earth which is so vital

327

00:16:20,310 --> 00:16:17,759

we have oceans and rivers we have rain

328

00:16:22,470 --> 00:16:20,320

and snow and clouds are just another

329

00:16:23,749 --> 00:16:22,480

form of water moving all over the planet

330

00:16:31,350 --> 00:16:23,759

that helps to keep us alive and

331

00:16:36,550 --> 00:16:34,629

i could watch you guys do this all day

332

00:16:40,389 --> 00:16:36,560

sevy and logan are asking something i've

333

00:16:45,590 --> 00:16:42,150

happy off day

334

00:16:48,310 --> 00:16:45,600

my name is debbie and i am five my name

335

00:16:50,949 --> 00:16:48,320

is logan and i'm 13. we know you love

336

00:16:53,189 --> 00:16:50,959

looking at the earth we love looking at

337

00:16:54,629 --> 00:16:53,199

the sauce we heard that the stars look

338

00:16:57,189 --> 00:16:54,639

different in the southern hemisphere

339

00:17:06,949 --> 00:16:57,199

than they do for us so we were wondering

340

00:17:11,189 --> 00:17:08,630

well thank you for the great questions

341

00:17:14,390 --> 00:17:11,199

actually we can see the stars from here

342

00:17:17,029 --> 00:17:14,400

actually the best view is uh from our

343

00:17:19,750 --> 00:17:17,039

own crew dragon resilience he has a vest

344

00:17:21,990 --> 00:17:19,760

view in town because from the dragon

345

00:17:24,789 --> 00:17:22,000

window we can see the the velocity

346

00:17:27,350 --> 00:17:24,799

vector the way we're flying into there's

347

00:17:29,669 --> 00:17:27,360

nothing blocking our view the other day

348

00:17:32,870 --> 00:17:29,679

we have we captured the very very

349

00:17:35,270 --> 00:17:32,880

beautiful milky way and it's just just

350

00:17:38,070 --> 00:17:35,280

out of out of our world so this is

351

00:17:40,150 --> 00:17:38,080

really the best view

352

00:17:42,549 --> 00:17:40,160

and i would add to that that up here you

353

00:17:44,630 --> 00:17:42,559

can see so many more stars than you can

354

00:17:46,070 --> 00:17:44,640

see they look pretty much like

355

00:17:48,310 --> 00:17:46,080

stars on the ground because we're not

356

00:17:50,630 --> 00:17:48,320

that much closer to the stars but you

357

00:17:51,990 --> 00:17:50,640

can see so many more because you don't

358

00:17:54,390 --> 00:17:52,000

have the clouds you don't have the

359

00:17:58,549 --> 00:17:54,400

atmosphere in the way you just have you

360

00:18:08,150 --> 00:18:02,310

so beautiful uh noah and yael are

361

00:18:19,750 --> 00:18:10,150

hi i'm noah i'm seven can you see

362

00:18:24,150 --> 00:18:21,990

so can you see hurricanes from space yes

363

00:18:26,470 --> 00:18:24,160

you can in fact as we've been talking up

364

00:18:27,909 --> 00:18:26,480

here you can see the whole hurricane and

365

00:18:30,390 --> 00:18:27,919

that's pretty neat to be able to see it

366

00:18:31,590 --> 00:18:30,400

you can see the eye and how it's forming

367

00:18:33,270 --> 00:18:31,600

uh but one of the things that's

368

00:18:35,190 --> 00:18:33,280

interesting about up here when you see

369

00:18:37,029 --> 00:18:35,200

that whole hurricane you're pretty

370

00:18:39,750 --> 00:18:37,039

amazed and you start taking pictures and

371

00:18:41,830 --> 00:18:39,760

all of that of it but then you forget

372

00:18:43,110 --> 00:18:41,840

that there are people in danger down on

373

00:18:44,549 --> 00:18:43,120

earth with the hurricanes and all that

374

00:18:46,549 --> 00:18:44,559

so sometimes it's easy to lose

375

00:18:48,070 --> 00:18:46,559

perspective up here of what's actually

376

00:18:50,150 --> 00:18:48,080

happening down on the earth so when we

377

00:18:52,070 --> 00:18:50,160

see those hurricanes we have to remind

378

00:18:54,830 --> 00:18:52,080

just how dangerous it is for everybody

379

00:19:00,070 --> 00:18:57,430

ground okay so there's one last question

380

00:19:01,590 --> 00:19:00,080

from me um and this is crazy but since

381

00:19:03,830 --> 00:19:01,600

we've been speaking you guys have

382

00:19:06,150 --> 00:19:03,840

traveled literally about halfway around

383

00:19:07,990 --> 00:19:06,160

the earth which is insanely surreal to

384

00:19:10,710 --> 00:19:08,000

think about um

385

00:19:12,230 --> 00:19:10,720

we all know that time is so precious so

386

00:19:14,310 --> 00:19:12,240

do you guys have any tips about how to

387

00:19:15,909 --> 00:19:14,320

save the time and be very precious and

388

00:19:20,870 --> 00:19:15,919

be very present in the moments we are

389

00:19:24,549 --> 00:19:22,549

well i think the first thing is just to

390

00:19:27,110 --> 00:19:24,559

really think about your question

391

00:19:29,590 --> 00:19:27,120

to be present to be in the moment to be

392

00:19:31,190 --> 00:19:29,600

intentional and be mindful i think just

393

00:19:35,350 --> 00:19:31,200

having that in your mind that you want

394

00:19:40,390 --> 00:19:38,230

i think also is is to be grateful for

395

00:19:41,990 --> 00:19:40,400

your situation i know we are always we

396

00:19:43,990 --> 00:19:42,000

are all very grateful that we have this

397

00:19:46,789 --> 00:19:44,000

opportunity to be up here but we're also

398

00:19:49,110 --> 00:19:46,799

grateful for our friendships and getting

399

00:19:51,510 --> 00:19:49,120

to spend time together um it's kind of

400

00:19:55,510 --> 00:19:51,520

like a little family up here and and

401
00:19:58,950 --> 00:19:56,710
you know one of the other things that

402
00:20:00,310 --> 00:19:58,960
happens when we're up here um

403
00:20:02,630 --> 00:20:00,320
you know we talked about all these

404
00:20:03,830 --> 00:20:02,640
fantastic views of the earth but one of

405
00:20:05,510 --> 00:20:03,840
the other things that makes you do is it

406
00:20:08,870 --> 00:20:05,520
makes you miss the earth

407
00:20:11,350 --> 00:20:08,880
i really can't wait to get back to earth

408
00:20:13,430 --> 00:20:11,360
i love being up here in space but

409
00:20:18,630 --> 00:20:13,440
it just doesn't compare to to being home

410
00:20:22,789 --> 00:20:21,029
and i'd add to that that

411
00:20:24,230 --> 00:20:22,799
whenever you're working

412
00:20:25,990 --> 00:20:24,240
having fun

413
00:20:28,710 --> 00:20:26,000

whatever you're doing you have the

414

00:20:30,789 --> 00:20:28,720

option to choose to focus on what you're

415

00:20:33,350 --> 00:20:30,799

enjoying about it and and slow down

416

00:20:35,029 --> 00:20:33,360

enough to realize that even when things

417

00:20:36,470 --> 00:20:35,039

are hard you can find something to

418

00:20:41,270 --> 00:20:36,480

really appreciate about the moment that

419

00:20:44,230 --> 00:20:43,430

perfectly perfectly said

420

00:20:45,830 --> 00:20:44,240

um

421

00:20:47,830 --> 00:20:45,840

i just want to say

422

00:20:49,270 --> 00:20:47,840

lastly thank you guys so much for

423

00:20:51,750 --> 00:20:49,280

helping young people around the world

424

00:20:53,270 --> 00:20:51,760

better understand our planet today and

425

00:20:55,990 --> 00:20:53,280

thank you guys so much for spending

426
00:20:57,909 --> 00:20:56,000
earth day with us godspeed to crew one

427
00:21:00,310 --> 00:20:57,919
with your return to earth next week and

428
00:21:01,669 --> 00:21:00,320
i wish you guys all the best and mark we

429
00:21:03,990 --> 00:21:01,679
really look forward to following you

430
00:21:06,630 --> 00:21:04,000
along with crew 2 astronauts during your

431
00:21:11,190 --> 00:21:06,640
expedition 65 mission thank you guys so

432
00:21:11,200 --> 00:21:16,390
thank you as well happy earth day

433
00:21:24,549 --> 00:21:18,470
this is houston acr

434
00:21:27,830 --> 00:21:26,070
thank you mr mendes and all our

435
00:21:29,750 --> 00:21:27,840
participants it was an honor to have you

436
00:21:31,590 --> 00:21:29,760
aboard the space station today station