
GOLD
AWARD
JAXA

1
00:00:07,829 --> 00:00:02,310
station houston on space to ground two

2
00:00:11,509 --> 00:00:08,950
houston station we're ready for the

3
00:00:15,350 --> 00:00:13,509
copy neil middle school this is mission

4
00:00:22,550 --> 00:00:15,360
control houston please call station for

5
00:00:29,269 --> 00:00:24,870
station this is neil middle school how

6
00:00:32,310 --> 00:00:30,950
neil middle school we've got you loud

7
00:00:49,350 --> 00:00:32,320
and clear aboard the international space

8
00:00:53,270 --> 00:00:52,310
hello my name is isaac my question is

9
00:00:55,670 --> 00:00:53,280
for don

10
00:01:02,310 --> 00:00:55,680
can you explain using the restroom in

11
00:01:06,950 --> 00:01:04,869
explain how to do it oh can you

12
00:01:08,390 --> 00:01:06,960
to to use the restroom in space is not

13
00:01:09,910 --> 00:01:08,400

that much different than using a

14
00:01:11,109 --> 00:01:09,920
restroom

15
00:01:14,149 --> 00:01:11,119
on earth

16
00:01:15,190 --> 00:01:14,159
you go in you got to turn on a machine

17
00:01:19,350 --> 00:01:15,200
and

18
00:01:21,510 --> 00:01:19,360
then you have a bucket with air going in

19
00:01:36,390 --> 00:01:21,520
that and when you're all done you seal

20
00:01:41,350 --> 00:01:38,630
hello my name is isaiah

21
00:01:44,069 --> 00:01:41,360
my question is for dan

22
00:01:46,550 --> 00:01:44,079
how does nasa transport

23
00:01:51,350 --> 00:01:46,560
astronauts to and from the international

24
00:01:54,870 --> 00:01:53,109
okay in general we use rockets to get to

25
00:01:56,550 --> 00:01:54,880
and from the international space station

26
00:01:58,469 --> 00:01:56,560
and up until last year we had the

27
00:01:59,830 --> 00:01:58,479
capability of using space shuttles to do

28
00:02:01,830 --> 00:01:59,840
that and the space shuttle helped us

29
00:02:03,190 --> 00:02:01,840
build the international space station

30
00:02:05,190 --> 00:02:03,200
right now in the united states we're

31
00:02:07,030 --> 00:02:05,200
developing commercial vehicles there's a

32
00:02:09,430 --> 00:02:07,040
whole series of them right now that

33
00:02:11,190 --> 00:02:09,440
allow us to transport humans to and from

34
00:02:13,910 --> 00:02:11,200
the international space station from

35
00:02:15,910 --> 00:02:13,920
planet earth and uh the three of us

36
00:02:19,430 --> 00:02:15,920
along with our three uh cosmonaut

37
00:02:21,350 --> 00:02:19,440
colleagues all came up on a soyuz rocket

38
00:02:25,830 --> 00:02:21,360

about four months and six months ago

39
00:02:30,150 --> 00:02:28,150
hello my name is adonis my question is

40
00:02:36,790 --> 00:02:30,160
for andre what happens if there is a

41
00:02:41,190 --> 00:02:38,949
yes we are of course in a closed

42
00:02:43,430 --> 00:02:41,200
environment and there are several types

43
00:02:46,630 --> 00:02:43,440
of emergencies that can happen here and

44
00:02:49,190 --> 00:02:46,640
one of them could be a fire uh we cannot

45
00:02:50,309 --> 00:02:49,200
just leave the house as would be wise

46
00:02:52,710 --> 00:02:50,319
because we are

47
00:02:54,309 --> 00:02:52,720
stuck here so we have to deal with the

48
00:02:56,470 --> 00:02:54,319
fire ourselves it means that we have to

49
00:02:58,229 --> 00:02:56,480
protect ourselves against the smoke and

50
00:03:01,030 --> 00:02:58,239
toxic gases so we have masks with

51
00:03:03,190 --> 00:03:01,040
special filters for that and we have

52
00:03:04,710 --> 00:03:03,200
of course a lot of fire extinguishers

53
00:03:06,949 --> 00:03:04,720
and one of the most important thing is

54
00:03:08,470 --> 00:03:06,959
to to cut the electricity

55
00:03:10,229 --> 00:03:08,480
and that is how we would deal with the

56
00:03:12,790 --> 00:03:10,239
fire

57
00:03:14,630 --> 00:03:12,800
remember also that the materials here

58
00:03:18,229 --> 00:03:14,640
are very safe so that the chance on the

59
00:03:19,910 --> 00:03:18,239
fire is very very small another problem

60
00:03:21,670 --> 00:03:19,920
another problem that can happen of

61
00:03:24,149 --> 00:03:21,680
course is a hole in the space station

62
00:03:27,190 --> 00:03:24,159
because we are maybe hit by a space

63
00:03:30,149 --> 00:03:27,200

debris this is also very unlikely

64
00:03:32,630 --> 00:03:30,159
so we are very very well trained how to

65
00:03:34,949 --> 00:03:32,640
deal with that quickly close hatches and

66
00:03:36,710 --> 00:03:34,959
try to find the leak so

67
00:03:40,070 --> 00:03:36,720
we are well prepared but the chances are

68
00:03:43,670 --> 00:03:42,630
hello my name is mara and my question is

69
00:03:45,990 --> 00:03:43,680
for don

70
00:03:48,229 --> 00:03:46,000
what experiments are currently being

71
00:03:53,030 --> 00:03:48,239
conducted with nasa on the international

72
00:03:57,910 --> 00:03:54,869
we have two

73
00:04:00,710 --> 00:03:57,920
general categories of experiments we

74
00:04:02,470 --> 00:04:00,720
have life science experiments and most

75
00:04:03,910 --> 00:04:02,480
of those are experiments that we do on

76
00:04:06,630 --> 00:04:03,920
ourselves

77
00:04:08,550 --> 00:04:06,640
we're looking at how human physiology

78
00:04:10,710 --> 00:04:08,560
adapts and

79
00:04:12,550 --> 00:04:10,720
behaves in a weightless environment over

80
00:04:15,110 --> 00:04:12,560
long periods of time

81
00:04:17,189 --> 00:04:15,120
and the other category of experiments

82
00:04:19,590 --> 00:04:17,199
are physical science experiments these

83
00:04:21,749 --> 00:04:19,600
are things that involve growing crystals

84
00:04:24,070 --> 00:04:21,759
or combustion which is a fancy term for

85
00:04:26,150 --> 00:04:24,080
burning things

86
00:04:28,710 --> 00:04:26,160
and and these are the kinds of physical

87
00:04:31,270 --> 00:04:28,720
experiments a surface tension experiment

88
00:04:33,270 --> 00:04:31,280

uh experiments dealing with convection

89
00:04:35,510 --> 00:04:33,280
and diffusion these are the kinds of

90
00:04:37,670 --> 00:04:35,520
physical experiments we do and then we

91
00:04:40,070 --> 00:04:37,680
have yet another category of experiments

92
00:04:42,070 --> 00:04:40,080
we call these engineering experiments

93
00:04:42,950 --> 00:04:42,080
and these are things like making

94
00:04:45,110 --> 00:04:42,960
new

95
00:04:47,189 --> 00:04:45,120
versions of our life support systems

96
00:04:54,390 --> 00:04:47,199
being able to recycle our water and

97
00:04:58,790 --> 00:04:56,550
hello my name is jasmine and my question

98
00:05:00,710 --> 00:04:58,800
is for dan what is the most amazing and

99
00:05:06,150 --> 00:05:00,720
unique thing that you have seen outside

100
00:05:09,749 --> 00:05:07,510
that's a tough question to answer

101
00:05:12,310 --> 00:05:09,759
because there's almost every day you see

102
00:05:14,710 --> 00:05:12,320
amazing and uh in

103
00:05:16,950 --> 00:05:14,720
unique kinds of things and probably in

104
00:05:18,230 --> 00:05:16,960
general the most amazing thing is planet

105
00:05:20,310 --> 00:05:18,240
earth when you see it from 400

106
00:05:22,150 --> 00:05:20,320
kilometers above it is absolutely

107
00:05:23,990 --> 00:05:22,160
breathtaking it's constantly changing it

108
00:05:26,469 --> 00:05:24,000
doesn't matter whether you're looking at

109
00:05:29,510 --> 00:05:26,479
mountains like the himalayas or auroras

110
00:05:30,950 --> 00:05:29,520
or or the oceans and coral reefs

111
00:05:32,390 --> 00:05:30,960
some of which will span hundreds and

112
00:05:34,230 --> 00:05:32,400
hundreds of miles beneath you all of

113
00:05:36,150 --> 00:05:34,240

it's absolutely spectacular

114
00:05:38,790 --> 00:05:36,160
for me individually probably the most

115
00:05:39,990 --> 00:05:38,800
amazing thing i saw was the rising of a

116
00:05:42,390 --> 00:05:40,000
comet

117
00:05:45,029 --> 00:05:42,400
above the horizon of the earth just

118
00:05:46,469 --> 00:05:45,039
before sunrise over australia

119
00:05:48,790 --> 00:05:46,479
back around christmas time back in

120
00:05:50,790 --> 00:05:48,800
december the comet was named lovejoy and

121
00:05:52,870 --> 00:05:50,800
it was spectacular and it was

122
00:05:54,710 --> 00:05:52,880
just one of the most incredible things

123
00:05:56,230 --> 00:05:54,720
we were flying like i said a little bit

124
00:05:59,029 --> 00:05:56,240
north of australia at the time there

125
00:06:01,029 --> 00:05:59,039
were thunderstorms and uh the whole

126
00:06:03,029 --> 00:06:01,039
earth beneath us from our perspective

127
00:06:04,309 --> 00:06:03,039
was just lit up with lightning flashes

128
00:06:06,550 --> 00:06:04,319
and they would reflect off the space

129
00:06:08,150 --> 00:06:06,560
station and uh and then all of a sudden

130
00:06:10,150 --> 00:06:08,160
as the sun was getting ready to rise

131
00:06:12,070 --> 00:06:10,160
there was this long

132
00:06:13,909 --> 00:06:12,080
bright arc that extended from her from

133
00:06:15,350 --> 00:06:13,919
the horizon all the way up from my

134
00:06:18,950 --> 00:06:15,360
perspective all the way up behind the

135
00:06:21,110 --> 00:06:18,960
japanese module the kibo and it went

136
00:06:23,110 --> 00:06:21,120
many many degrees and i had no idea what

137
00:06:24,950 --> 00:06:23,120
it was and it wasn't until a day or so

138
00:06:27,510 --> 00:06:24,960

later that we realized that it was a

139
00:06:30,390 --> 00:06:27,520
comet that had just barely grazed the

140
00:06:33,430 --> 00:06:30,400
sun and survived that close encounter

141
00:06:35,990 --> 00:06:33,440
and in so doing sent off all kinds of

142
00:06:38,309 --> 00:06:36,000
gas and dust streaming thousands

143
00:06:44,390 --> 00:06:38,319
millions of miles out into space and it

144
00:06:49,110 --> 00:06:46,550
hello my name is lisey my question is

145
00:06:54,950 --> 00:06:49,120
for andre how do you prepare to go into

146
00:06:59,909 --> 00:06:57,110
that's a good question

147
00:07:01,830 --> 00:06:59,919
because yeah it's it's not very

148
00:07:05,189 --> 00:07:01,840
normal to be

149
00:07:07,110 --> 00:07:05,199
in a space station for say six months

150
00:07:09,189 --> 00:07:07,120
we train a lot on all the different

151
00:07:11,270 --> 00:07:09,199
modules and during that training period

152
00:07:14,469 --> 00:07:11,280
we are a lot away from home because that

153
00:07:15,270 --> 00:07:14,479
is of course one of the things that is

154
00:07:18,950 --> 00:07:15,280
less

155
00:07:21,589 --> 00:07:18,960
family and uh

156
00:07:24,870 --> 00:07:21,599
but because we we travel so much and we

157
00:07:27,909 --> 00:07:24,880
we train in in japan in europe in russia

158
00:07:31,110 --> 00:07:27,919
all over the world uh and therefore we

159
00:07:32,870 --> 00:07:31,120
already are used a bit to being away

160
00:07:33,830 --> 00:07:32,880
from the family and the family is used

161
00:07:36,710 --> 00:07:33,840
to that

162
00:07:39,110 --> 00:07:36,720
as well so that's a way to prepare uh

163
00:07:40,790 --> 00:07:39,120

from from that point of view and uh to

164
00:07:42,150 --> 00:07:40,800
prepare to live and work here in the

165
00:07:45,670 --> 00:07:42,160
space station

166
00:07:47,749 --> 00:07:45,680
means that we train on all the equipment

167
00:07:49,909 --> 00:07:47,759
and all the the procedures that we have

168
00:07:50,790 --> 00:07:49,919
to do in all these places all over the

169
00:07:52,950 --> 00:07:50,800
world

170
00:07:56,629 --> 00:07:52,960
and that's a training of several years

171
00:07:58,550 --> 00:07:56,639
so uh it's not easy to uh to to live and

172
00:08:02,230 --> 00:07:58,560
work up here but the training is

173
00:08:05,270 --> 00:08:03,029
okay

174
00:08:07,350 --> 00:08:05,280
hello my name is jalen my question is

175
00:08:09,189 --> 00:08:07,360
for don i have an interest in getting a

176
00:08:15,110 --> 00:08:09,199
doctorate in astronomy what are the

177
00:08:17,990 --> 00:08:16,550
the requirements for becoming an

178
00:08:20,790 --> 00:08:18,000
astronaut if you look at them on a piece

179
00:08:23,430 --> 00:08:20,800
of paper don't look like they're all

180
00:08:25,990 --> 00:08:23,440
that much it basically requires

181
00:08:27,990 --> 00:08:26,000
a degree in a technical field and that's

182
00:08:29,749 --> 00:08:28,000
science engineering

183
00:08:35,589 --> 00:08:29,759
and

184
00:08:38,870 --> 00:08:35,599
what you really need to do is follow

185
00:08:41,350 --> 00:08:38,880
what sings to your heart so

186
00:08:44,310 --> 00:08:41,360
study a technical field that you're

187
00:08:46,790 --> 00:08:44,320
really really interested in do really

188
00:08:49,430 --> 00:08:46,800

really well in that field excel in that

189
00:08:58,230 --> 00:08:49,440
field and then apply to become an

190
00:09:06,070 --> 00:09:00,070
hi

191
00:09:14,150 --> 00:09:06,080
my question is for dan don or andrew can

192
00:09:14,160 --> 00:09:45,269
i thought you'd never ask

193
00:09:58,790 --> 00:09:47,030
the neat thing is you can do them really

194
00:10:03,030 --> 00:10:00,630
and you notice if you stretch out you go

195
00:10:09,190 --> 00:10:03,040
slowly and if you make yourself into a

196
00:10:14,310 --> 00:10:10,790
and that's called conservation of

197
00:10:19,509 --> 00:10:17,110
and what andre demonstrated is

198
00:10:21,509 --> 00:10:19,519
there's no conservation of position you

199
00:10:23,910 --> 00:10:21,519
can change your orientation just like a

200
00:10:25,910 --> 00:10:23,920
cat can and i think andre must be part

201
00:10:28,470 --> 00:10:25,920
cat because he just demonstrated you

202
00:10:31,269 --> 00:10:28,480
could change your position in space your

203
00:10:36,230 --> 00:10:31,279
your orientation without exerting an

204
00:10:40,389 --> 00:10:38,230
hello my name is lianda my question is

205
00:10:45,030 --> 00:10:40,399
for andre what do you do for fun on the

206
00:10:49,829 --> 00:10:47,269
well you just saw it uh this is one of

207
00:10:52,069 --> 00:10:49,839
the things we can we can do for fun so

208
00:10:55,750 --> 00:10:52,079
it's very nice to uh to be weightless

209
00:10:59,110 --> 00:10:55,760
and to float so we do our uh aerobatics

210
00:11:01,990 --> 00:10:59,120
uh and uh this is one thing but also

211
00:11:05,110 --> 00:11:02,000
the fact that items float and and water

212
00:11:07,670 --> 00:11:05,120
droplets so these are nice things to to

213
00:11:09,990 --> 00:11:07,680

play uh to play around with so these are

214
00:11:12,630 --> 00:11:10,000
interesting things and of course uh it's

215
00:11:15,269 --> 00:11:12,640
fantastic to look out the window and see

216
00:11:17,269 --> 00:11:15,279
this beautiful planet and the stars uh

217
00:11:20,069 --> 00:11:17,279
so there's enough already in the space

218
00:11:22,870 --> 00:11:20,079
station but beside that uh we also uh

219
00:11:25,030 --> 00:11:22,880
for example as a social event we watch

220
00:11:26,069 --> 00:11:25,040
movies together we even we have dinners

221
00:11:26,790 --> 00:11:26,079
together

222
00:11:29,910 --> 00:11:26,800
so

223
00:11:35,269 --> 00:11:29,920
we have plenty of activities to to have

224
00:11:38,870 --> 00:11:37,430
hello my name is brianna and my question

225
00:11:40,710 --> 00:11:38,880
is for dan

226
00:11:46,150 --> 00:11:40,720
has the international space station ever

227
00:11:49,670 --> 00:11:48,470
that's a good question

228
00:11:51,030 --> 00:11:49,680
up here

229
00:11:52,710 --> 00:11:51,040
we have a lot of

230
00:11:54,069 --> 00:11:52,720
a lot of potential things that could hit

231
00:11:56,470 --> 00:11:54,079
the space station

232
00:11:58,710 --> 00:11:56,480
in low earth orbit down on planet earth

233
00:12:01,750 --> 00:11:58,720
there's a lot of air and that fluid that

234
00:12:03,110 --> 00:12:01,760
uh that medium slows things relative to

235
00:12:05,190 --> 00:12:03,120
other things so you generally don't have

236
00:12:07,590 --> 00:12:05,200
high velocity unless you put a lot of

237
00:12:09,430 --> 00:12:07,600
energy into something so it takes an

238
00:12:11,509 --> 00:12:09,440

airplane with a jet engine to get going

239
00:12:12,470 --> 00:12:11,519
many hundreds of miles for example an

240
00:12:15,269 --> 00:12:12,480
hour

241
00:12:17,670 --> 00:12:15,279
up here on space station things are uh

242
00:12:20,150 --> 00:12:17,680
are moving quite fast because the

243
00:12:22,310 --> 00:12:20,160
there's almost no air almost no it's a

244
00:12:24,790 --> 00:12:22,320
it's nearly a pure vacuum outside of out

245
00:12:27,110 --> 00:12:24,800
of outside of here so if you get debris

246
00:12:29,190 --> 00:12:27,120
that gets captured it could be cometary

247
00:12:31,590 --> 00:12:29,200
debris things that make meteors shooting

248
00:12:33,509 --> 00:12:31,600
stars that you'd see from planet earth

249
00:12:36,069 --> 00:12:33,519
that might get captured by earth's orbit

250
00:12:38,550 --> 00:12:36,079
or earth may just wander into it

251
00:12:40,629 --> 00:12:38,560
if you have debris that's left over from

252
00:12:41,509 --> 00:12:40,639
old satellites or rockets or things like

253
00:12:44,550 --> 00:12:41,519
that

254
00:12:46,790 --> 00:12:44,560
to space station

255
00:12:48,710 --> 00:12:46,800
thankfully nothing big has ever hit it

256
00:12:50,550 --> 00:12:48,720
occasionally small things do hit it if

257
00:12:54,069 --> 00:12:50,560
you do a spacewalk outside you'll see

258
00:12:56,710 --> 00:12:54,079
very very tiny little little holes in uh

259
00:12:58,310 --> 00:12:56,720
in some of the uh the structures outside

260
00:13:00,230 --> 00:12:58,320
now the space station is shielded we

261
00:13:02,790 --> 00:13:00,240
have uh two layers of

262
00:13:05,350 --> 00:13:02,800
of metal cladding metal shielding on the

263
00:13:07,829 --> 00:13:05,360

almost all of the space station so it

264
00:13:10,069 --> 00:13:07,839
can the first layer can basically

265
00:13:11,829 --> 00:13:10,079
vaporize if you will most of uh little

266
00:13:14,150 --> 00:13:11,839
things like that that would run into it

267
00:13:16,710 --> 00:13:14,160
we got very good protection in the form

268
00:13:18,790 --> 00:13:16,720
of radars and very radars on the ground

269
00:13:21,269 --> 00:13:18,800
and very very smart people that are that

270
00:13:22,870 --> 00:13:21,279
monitor low earth orbit and look for

271
00:13:25,750 --> 00:13:22,880
things that we might run into or might

272
00:13:27,509 --> 00:13:25,760
run into us so on occasion if we do see

273
00:13:29,350 --> 00:13:27,519
something and have enough time we can

274
00:13:31,590 --> 00:13:29,360
actually move the space station to avoid

275
00:13:33,670 --> 00:13:31,600
it if we don't have time and we see

276
00:13:35,430 --> 00:13:33,680
something then what we can do is close

277
00:13:37,590 --> 00:13:35,440
all the hatches to make station as

278
00:13:39,269 --> 00:13:37,600
secure and safe as it can be and then we

279
00:13:41,829 --> 00:13:39,279
can go to our soyuz

280
00:13:43,590 --> 00:13:41,839
space vehicles and basically wait and if

281
00:13:55,910 --> 00:13:43,600
there is a major problem we can always

282
00:13:59,189 --> 00:13:58,069
hello my name is tanaya and my question

283
00:14:02,069 --> 00:13:59,199
is for don

284
00:14:16,150 --> 00:14:02,079
how is international international space

285
00:14:23,750 --> 00:14:19,110
uh solar storms uh we are pretty much

286
00:14:26,470 --> 00:14:23,760
protected by the earth's magnetosphere

287
00:14:28,870 --> 00:14:26,480
from solar storms we're pretty much

288
00:14:30,790 --> 00:14:28,880

outside of the atmosphere we're above

289
00:14:32,310 --> 00:14:30,800
most of the earth's atmosphere so you

290
00:14:34,870 --> 00:14:32,320
don't have atmospheric protection like

291
00:14:37,189 --> 00:14:34,880
you do on the surface of earth but earth

292
00:14:39,509 --> 00:14:37,199
acts like a giant magnet

293
00:14:44,150 --> 00:14:39,519
and

294
00:14:46,870 --> 00:14:44,160
the magnetic field extends way out into

295
00:14:48,870 --> 00:14:46,880
earth for out outside of earth thousands

296
00:14:56,629 --> 00:14:48,880
of miles and and

297
00:15:01,269 --> 00:14:59,030
hello my name is sinclair my question is

298
00:15:08,389 --> 00:15:01,279
for dan how do you feel about public

299
00:15:11,910 --> 00:15:10,310
in general i think most all of us that

300
00:15:14,550 --> 00:15:11,920
are in this business would love to see

301
00:15:15,750 --> 00:15:14,560
more people in this business so i think

302
00:15:21,189 --> 00:15:15,760
the more

303
00:15:22,629 --> 00:15:21,199
people we can have that fly in space the

304
00:15:24,949 --> 00:15:22,639
better i think when all of us were

305
00:15:27,509 --> 00:15:24,959
growing up we thought by this point now

306
00:15:28,949 --> 00:15:27,519
there'd be thousands tens of thousands

307
00:15:30,550 --> 00:15:28,959
of people living in space all the time

308
00:15:32,470 --> 00:15:30,560
well it turns out flying in space is

309
00:15:34,389 --> 00:15:32,480
pretty tough it's pretty hard to do and

310
00:15:36,150 --> 00:15:34,399
there's a lot of challenges to it but

311
00:15:38,470 --> 00:15:36,160
we're now getting to the point where

312
00:15:40,230 --> 00:15:38,480
companies are able to develop rockets

313
00:15:42,150 --> 00:15:40,240

that we think will be safe enough that

314
00:15:43,829 --> 00:15:42,160
we'll be able to have more more more

315
00:15:45,509 --> 00:15:43,839
more people fly to space

316
00:15:46,790 --> 00:15:45,519
they'll be coming to space station

317
00:15:49,189 --> 00:15:46,800
they'll be going to other places we'll

318
00:15:50,629 --> 00:15:49,199
build other space stations for them and

319
00:15:54,069 --> 00:15:50,639
ultimately i think all that's going to

320
00:15:55,670 --> 00:15:54,079
help humanity leave planet earth and go

321
00:15:57,269 --> 00:15:55,680
to other places we'd like to be and

322
00:16:01,670 --> 00:15:57,279
extend our presence out into the solar

323
00:16:05,350 --> 00:16:03,430
my name is nana and my question is for

324
00:16:10,310 --> 00:16:05,360
andre how do you get your supply of

325
00:16:13,430 --> 00:16:12,230
that's a very good question

326
00:16:16,550 --> 00:16:13,440
these are

327
00:16:17,430 --> 00:16:16,560
important resources as you can imagine

328
00:16:19,670 --> 00:16:17,440
so

329
00:16:23,350 --> 00:16:19,680
we have to be smart and

330
00:16:26,310 --> 00:16:23,360
we are trying to uh say to to model the

331
00:16:28,629 --> 00:16:26,320
earth and re-recycle uh the water as

332
00:16:30,870 --> 00:16:28,639
much as possible so that means that the

333
00:16:35,269 --> 00:16:30,880
water that we that's in our breath or

334
00:16:38,470 --> 00:16:35,279
that that from from sports uh so all the

335
00:16:41,189 --> 00:16:38,480
water that we create uh is being uh

336
00:16:42,710 --> 00:16:41,199
being used again to and purified meaning

337
00:16:44,629 --> 00:16:42,720
also the urine

338
00:16:47,430 --> 00:16:44,639

so all the water in urine is being

339
00:16:48,870 --> 00:16:47,440
purified and we we make the drinkable

340
00:16:52,150 --> 00:16:48,880
water out of that

341
00:16:53,189 --> 00:16:52,160
then this is linked to another system uh

342
00:16:55,990 --> 00:16:53,199
which

343
00:16:59,670 --> 00:16:56,000
divides the water into hydrogen and

344
00:17:00,470 --> 00:16:59,680
oxygen so we get our oxygen partly from

345
00:17:02,949 --> 00:17:00,480
from

346
00:17:07,350 --> 00:17:02,959
the the water there are other systems as

347
00:17:09,270 --> 00:17:07,360
well that create oxygen but of course we

348
00:17:11,110 --> 00:17:09,280
trying to recycle as much as possible

349
00:17:13,750 --> 00:17:11,120
what we have because everything you

350
00:17:16,870 --> 00:17:13,760
launch into space is is weight and it's

351
00:17:19,110 --> 00:17:16,880
costing a lot of money so i think this

352
00:17:22,069 --> 00:17:19,120
is a fantastic equipment we have we have

353
00:17:25,270 --> 00:17:22,079
up here uh and which could be a uh of

354
00:17:31,110 --> 00:17:25,280
great uh advantage for for

355
00:17:35,110 --> 00:17:33,669
hello my name is dwayne and if my

356
00:17:37,110 --> 00:17:35,120
question is for dying and if i get

357
00:17:38,470 --> 00:17:37,120
permission from my parents and money's

358
00:17:45,270 --> 00:17:38,480
not a problem can you take me into space

359
00:17:48,630 --> 00:17:47,190
well i'll tell you

360
00:17:51,909 --> 00:17:48,640
i think uh

361
00:17:54,470 --> 00:17:51,919
uh saving your nickels to pay for a way

362
00:17:56,870 --> 00:17:54,480
into space is gonna be easier than

363
00:17:59,270 --> 00:17:56,880

getting permission from your parents

364
00:18:00,549 --> 00:17:59,280
uh however if you can get permission

365
00:18:03,510 --> 00:18:00,559
from your parents

366
00:18:05,029 --> 00:18:03,520
the next time i fly into space i'll and

367
00:18:06,950 --> 00:18:05,039
if you aren't too big i'll figure how to

368
00:18:09,190 --> 00:18:06,960
pack you into my suitcase

369
00:18:10,310 --> 00:18:09,200
and you can come with me

370
00:18:12,230 --> 00:18:10,320
however

371
00:18:14,549 --> 00:18:12,240
uh more seriously

372
00:18:16,630 --> 00:18:14,559
what you what you should do is is save

373
00:18:18,230 --> 00:18:16,640
up some of your money maybe ask your

374
00:18:20,150 --> 00:18:18,240
parents if you could do extra chores so

375
00:18:22,950 --> 00:18:20,160
you can make more money and then you can

376
00:18:24,710 --> 00:18:22,960
use that to either go to some form of a

377
00:18:27,510 --> 00:18:24,720
space camp where you can learn about

378
00:18:29,590 --> 00:18:27,520
space or maybe go to a community college

379
00:18:33,029 --> 00:18:29,600
class where you can learn more about

380
00:18:35,190 --> 00:18:33,039
space and by doing that it will set you

381
00:18:36,630 --> 00:18:35,200
up so that by the time you finish up

382
00:18:38,150 --> 00:18:36,640
with college

383
00:18:40,390 --> 00:18:38,160
you won't need to worry about buying

384
00:18:52,950 --> 00:18:40,400
your way to space you can come and join

385
00:18:56,549 --> 00:18:54,630
on behalf of nil middle school we want

386
00:19:02,870 --> 00:18:56,559
to say thank you so much for being with

387
00:19:06,549 --> 00:19:04,710
neil middle school international space

388
00:19:08,789 --> 00:19:06,559

station it was our pleasure it was our

389
00:19:19,669 --> 00:19:08,799
pleasure to have you aboard today and we

390
00:19:29,990 --> 00:19:21,669
the station this is houston acr that

391
00:19:32,710 --> 00:19:31,590
and thank you participants at neil

392
00:19:34,470 --> 00:19:32,720
middle school station we are now