



esa  
European Space Agency

esa

EXPRESS

EUROPEAN MEDICAL  
CULTIVATION SYSTEM

1  
00:00:11,299 --> 00:00:04,070  
ition this is your own fear and mindsets

2  
00:00:14,780 --> 00:00:11,309  
idiot how do you hear me I hear you loud

3  
00:00:24,800 --> 00:00:14,790  
and clear jewel station is ready for the

4  
00:00:27,740 --> 00:00:24,810  
space fanta gotten a good i'll give you

5  
00:00:38,190 --> 00:00:27,750  
to unravel if you repeat this sentence

6  
00:00:43,980 --> 00:00:42,060  
cologne Kern this here is the internet's

7  
00:00:46,800 --> 00:00:43,990  
night on this is the International Space

8  
00:00:54,360 --> 00:00:46,810  
Station and we are ready for the space

9  
00:00:57,210 --> 00:00:54,370  
television garden Arriba Alexander gasps

10  
00:01:01,380 --> 00:00:57,220  
Keys Andrea TV hi Alexander this is

11  
00:01:06,090 --> 00:01:01,390  
entire cable yeah I'm very impressed and

12  
00:01:11,730 --> 00:01:06,100  
I found it wonderful that he are 400

13  
00:01:15,960 --> 00:01:11,740

kilometers above us and honestly when

14

00:01:18,300 --> 00:01:15,970

you're so far away by Dallas 15 how

15

00:01:22,140 --> 00:01:18,310

great is the desire to be even farther

16

00:01:25,260 --> 00:01:22,150

away yeah this is the trees or this

17

00:01:28,670 --> 00:01:25,270

month I'm yeah vices mendiny s and

18

00:01:31,350 --> 00:01:28,680

glisan scoffs at first you know that

19

00:01:35,609 --> 00:01:31,360

feeling stable hoping that you'd done

20

00:01:39,150 --> 00:01:35,619

the first big step into the space and

21

00:01:43,400 --> 00:01:39,160

now from here on it is really only a

22

00:01:46,889 --> 00:01:43,410

small step to go farther out to space

23

00:01:50,340 --> 00:01:46,899

and as an astronaut he and the space

24

00:01:52,800 --> 00:01:50,350

station you can feel look out during the

25

00:01:55,710 --> 00:01:52,810

orbital night which only takes about 30

26

00:01:59,639 --> 00:01:55,720

minutes here on orbit and you look at

27

00:02:02,699 --> 00:01:59,649

the stars the the wish of course occurs

28

00:02:05,340 --> 00:02:02,709

that you would want to go farther than

29

00:02:07,830 --> 00:02:05,350

the space station and it's a great place

30

00:02:10,730 --> 00:02:07,840

here on the space station to look back

31

00:02:13,800 --> 00:02:10,740

down on earth and it was very impressive

32

00:02:18,980 --> 00:02:13,810

when I did that for the first time does

33

00:02:23,100 --> 00:02:18,990

the Omaha you just you just told that

34

00:02:27,630 --> 00:02:23,110

you were so impressed by looking down

35

00:02:30,420 --> 00:02:27,640

the earth and which part of the earth is

36

00:02:33,150 --> 00:02:30,430

your favorite and how many times do you

37

00:02:36,750 --> 00:02:33,160

think about your family when you fly

38

00:02:39,750 --> 00:02:36,760

across Germany shall give that's really

39

00:02:44,100 --> 00:02:39,760

why you're here right and everybody

40

00:02:46,770 --> 00:02:44,110

looks at their home country and the

41

00:02:48,670 --> 00:02:46,780

places you have been already and it's

42

00:02:52,839 --> 00:02:48,680

very difficult to

43

00:02:55,420 --> 00:02:52,849

soon to say which place on on earth I

44

00:03:00,339 --> 00:02:55,430

like the best I think the most

45

00:03:03,640 --> 00:03:00,349

impressive is to see the atmosphere but

46

00:03:07,030 --> 00:03:03,650

as a Jew so this is I knew exactly how

47

00:03:11,979 --> 00:03:07,040

thick the atmospheres but to actually

48

00:03:15,039 --> 00:03:11,989

see it to how fragile and then the

49

00:03:19,330 --> 00:03:15,049

atmosphere really is and you can see the

50

00:03:22,780 --> 00:03:19,340

stars through the atmosphere and it is

51  
00:03:25,509 --> 00:03:22,790  
very fragile that I could see from the

52  
00:03:28,569 --> 00:03:25,519  
outside and and that was very impressive

53  
00:03:33,159 --> 00:03:28,579  
for me and surprising and today I flew

54  
00:03:36,479 --> 00:03:33,169  
across picking Beijing and foyer since

55  
00:03:40,119 --> 00:03:36,489  
you can see fires and smoke and

56  
00:03:45,490 --> 00:03:40,129  
polluting the environment and it hurts

57  
00:03:47,080 --> 00:03:45,500  
just to see that noxious money found

58  
00:03:52,289 --> 00:03:47,090  
saga was a difference blown to think

59  
00:03:56,439 --> 00:03:52,299  
that I will ask you a woman question and

60  
00:03:59,020 --> 00:03:56,449  
I'm blonde and so I'm allowed to ask

61  
00:04:05,830 --> 00:03:59,030  
this question and women always try to

62  
00:04:08,770 --> 00:04:05,840  
get in their sleep how how do you sleep

63  
00:04:10,270 --> 00:04:08,780

in the space station it looks like you

64

00:04:13,179 --> 00:04:10,280

you're very relaxed it looks like you

65

00:04:15,610 --> 00:04:13,189

get in a sleep that's my name is dank to

66

00:04:18,539 --> 00:04:15,620

it what it is a lot easier than you

67

00:04:23,080 --> 00:04:18,549

actually think for the first two days

68

00:04:26,710 --> 00:04:23,090

you have problems to fall asleep because

69

00:04:28,990 --> 00:04:26,720

the first time you sleep in why you're

70

00:04:31,779 --> 00:04:29,000

floating and you don't have a pillow nor

71

00:04:33,939 --> 00:04:31,789

mattress and sometimes you wake up

72

00:04:36,330 --> 00:04:33,949

during the night and you have no idea

73

00:04:40,719 --> 00:04:36,340

where it's up and down and the

74

00:04:44,260 --> 00:04:40,729

orientation that you when the students

75

00:04:47,469 --> 00:04:44,270

had happened in the space station that

76

00:04:49,960 --> 00:04:47,479

we have is we look at the ceiling and

77

00:04:53,800 --> 00:04:49,970

the ground but sometimes you lose that

78

00:04:57,610 --> 00:04:53,810

and after two days I got used to it and

79

00:05:01,750 --> 00:04:57,620

then I slept very well and I sleep about

80

00:05:03,910 --> 00:05:01,760

eight hours and the snake this is very

81

00:05:05,800 --> 00:05:03,920

lexing because it's nice because nothing

82

00:05:17,500 --> 00:05:05,810

is touching you and nothing is bothering

83

00:05:20,820 --> 00:05:17,510

you because you're just floating urns in

84

00:05:26,350 --> 00:05:20,830

a first in the fire you hear me I

85

00:05:28,120 --> 00:05:26,360

couldn't understand the question boody

86

00:05:31,090 --> 00:05:28,130

Haddon of Muhammad see the solution do

87

00:05:34,960 --> 00:05:31,100

schlaf employment zo-1 veneer question

88

00:05:37,510 --> 00:05:34,970

is do you also dream and what and in

89

00:05:40,150 --> 00:05:37,520

which language in satisfied this is a

90

00:05:44,230 --> 00:05:40,160

very interesting question because today

91

00:05:47,680 --> 00:05:44,240

I had the i realize i remember the first

92

00:05:51,370 --> 00:05:47,690

dream in space station and I dreamt that

93

00:05:55,950 --> 00:05:51,380

read him myself we're launching on a

94

00:05:59,530 --> 00:05:55,960

Canadian rocket in to space first we

95

00:06:03,310 --> 00:05:59,540

first we went to Kazakhstan and the

96

00:06:07,050 --> 00:06:03,320

Canadian rocket was put on a Soyuz

97

00:06:09,250 --> 00:06:07,060

rocket and and I was a little bit

98

00:06:11,860 --> 00:06:09,260

disappointed that the area and rocket

99

00:06:15,820 --> 00:06:11,870

was not in the dream but maybe the next

100

00:06:18,670 --> 00:06:15,830

time what you have a little bit of time

101  
00:06:22,690 --> 00:06:18,680  
to mid-off November to to dream a lot

102  
00:06:26,320 --> 00:06:22,700  
more what is your main job on this play

103  
00:06:28,840 --> 00:06:26,330  
station for my knowledge it's to conduct

104  
00:06:30,640 --> 00:06:28,850  
very important experiments please tell

105  
00:06:34,060 --> 00:06:30,650  
us a little bit about it yes you're

106  
00:06:36,760 --> 00:06:34,070  
correct we have 160 experiments that we

107  
00:06:41,350 --> 00:06:36,770  
will conduct in this half a year and

108  
00:06:43,030 --> 00:06:41,360  
will be 40 European experiments here in

109  
00:06:47,950 --> 00:06:43,040  
the Columbus module which is the

110  
00:06:49,660 --> 00:06:47,960  
European science module and awesome

111  
00:06:52,750 --> 00:06:49,670  
completely visit hates keyboard it is

112  
00:06:55,540 --> 00:06:52,760  
almost like a complete laboratory in the

113  
00:06:58,690 --> 00:06:55,550

university for penance and we have

114

00:07:02,110 --> 00:06:58,700

experiment combustion experiments stuff

115

00:07:06,160 --> 00:07:02,120

again in the shadows it's a combustion

116

00:07:08,410 --> 00:07:06,170

are the adoption kanasu tafoya facility

117

00:07:12,490 --> 00:07:08,420

argan also added too much p combustion

118

00:07:15,430 --> 00:07:12,500

of materials that then will lead to a

119

00:07:19,960 --> 00:07:15,440

better understanding on earth

120

00:07:22,410 --> 00:07:19,970

and for industrial processes for for the

121

00:07:31,000 --> 00:07:22,420

oil and gas industry in one or two

122

00:07:33,820 --> 00:07:31,010

months the ATV the European zippy I'm a

123

00:07:38,500 --> 00:07:33,830

TV the European transport vehicle will

124

00:07:43,990 --> 00:07:38,510

bring a furnace with fluid liquids and

125

00:07:45,970 --> 00:07:44,000

we can a lot better stinger here yeah

126

00:07:49,560 --> 00:07:45,980

definitely be off the air and even look

127

00:07:52,390 --> 00:07:49,570

at these materials and we can examine

128

00:07:57,220 --> 00:07:52,400

things on the space station that we

129

00:07:59,710 --> 00:07:57,230

cannot experience on the earth because

130

00:08:03,970 --> 00:07:59,720

we have gravity on earth and T and

131

00:08:08,170 --> 00:08:03,980

microgravity it is a lot easier and even

132

00:08:11,620 --> 00:08:08,180

only possible to make new materials that

133

00:08:18,190 --> 00:08:11,630

possibly could be used in a couple years

134

00:08:20,980 --> 00:08:18,200

in cars or other materials on earth and

135

00:08:22,990 --> 00:08:20,990

we can't do research here on the space

136

00:08:26,230 --> 00:08:23,000

station that cannot be done on earth

137

00:08:29,050 --> 00:08:26,240

Alex are not that many obese you you are

138

00:08:32,830 --> 00:08:29,060

our men Alexander we we never doubted

139

00:08:35,640 --> 00:08:32,840

that after such a long day with these

140

00:08:40,330 --> 00:08:35,650

incredible experiments with your

141

00:08:42,909 --> 00:08:40,340

levitation oven and on earth you

142

00:08:47,580 --> 00:08:42,919

probably like to sit home and drink a

143

00:08:50,920 --> 00:08:47,590

glass of wine and glass a cup of coffee

144

00:08:54,160 --> 00:08:50,930

what are you on a space station welding

145

00:08:57,280 --> 00:08:54,170

cappuccino nice guns as you shop here so

146

00:09:01,079 --> 00:08:57,290

I I have I cannot drink wine on the

147

00:09:04,960 --> 00:09:01,089

space station but this is this the space

148

00:09:07,480 --> 00:09:04,970

version of coffee or this is drinking

149

00:09:13,150 --> 00:09:07,490

water and it does does not really tastes

150

00:09:16,900 --> 00:09:13,160

as good as on earth but module on Tim we

151  
00:09:20,790 --> 00:09:16,910  
have the cupola and we can look down on

152  
00:09:24,700 --> 00:09:20,800  
the earth straight downwards and in a

153  
00:09:26,800 --> 00:09:24,710  
360-degree around and that makes up for

154  
00:09:28,990 --> 00:09:26,810  
a lot of things that we have on earth

155  
00:09:32,220 --> 00:09:29,000  
and we miss up here

156  
00:09:35,710 --> 00:09:32,230  
Gladys yet so my guns off sale I

157  
00:09:40,510 --> 00:09:35,720  
inviting you phanzig a fan ing cringing

158  
00:09:43,000 --> 00:09:40,520  
to come to the fancy cotton and to our

159  
00:09:46,090 --> 00:09:43,010  
show and you will get the best

160  
00:09:50,280 --> 00:09:46,100  
cappuccini have ever had on earth and at

161  
00:09:53,080 --> 00:09:50,290  
this point I would like to ask you

162  
00:09:57,250 --> 00:09:53,090  
besides friends and family is there

163  
00:10:00,460 --> 00:09:57,260

something you miss the most in the space

164

00:10:04,570 --> 00:10:00,470

station and which would you really like

165

00:10:09,060 --> 00:10:04,580

to have on Space Station there's a

166

00:10:11,410 --> 00:10:09,070

couple things that you miss and the

167

00:10:14,050 --> 00:10:11,420

grass is always greener on the other

168

00:10:17,740 --> 00:10:14,060

side of the fence s deer trail and say

169

00:10:23,020 --> 00:10:17,750

I'm missing shower special foods and

170

00:10:26,590 --> 00:10:23,030

just going hiking and running in the

171

00:10:29,500 --> 00:10:26,600

forest and the the smell and the sounds

172

00:10:31,570 --> 00:10:29,510

in the forest I really miss and I also

173

00:10:34,210 --> 00:10:31,580

missed that when I spent some time in

174

00:10:37,900 --> 00:10:34,220

Antarctica and I really enjoyed it when

175

00:10:39,370 --> 00:10:37,910

I came back to the green into the forest

176

00:10:41,980 --> 00:10:39,380

and this is something I'm looking

177

00:10:47,170 --> 00:10:41,990

forward to have again I come back to the

178

00:10:52,570 --> 00:10:47,180

a and well I cannot provide you with

179

00:10:55,450 --> 00:10:52,580

smells and and it would be would be a

180

00:10:59,440 --> 00:10:55,460

new experiment how you can't transfer

181

00:11:02,040 --> 00:10:59,450

smell through the television but I have

182

00:11:04,360 --> 00:11:02,050

something for you which you have heard

183

00:11:06,970 --> 00:11:04,370

definitely when you were running and

184

00:11:20,970 --> 00:11:06,980

hiking in the forest and this is only

185

00:11:20,980 --> 00:11:29,639

you

186

00:11:34,470 --> 00:11:32,579

kook an extra coo coo coo brigands

187

00:11:36,600 --> 00:11:34,480

unleashed and a cuckoo cuckoo one this

188

00:11:42,799 --> 00:11:36,610

was not a cuckoo clock that was an

189

00:11:45,960 --> 00:11:42,809

actual cuckoo bird and I hope it was

190

00:11:48,660 --> 00:11:45,970

nice gift for you and made you a little

191

00:11:53,249 --> 00:11:48,670

bit happy and it was a great honor to

192

00:11:57,569 --> 00:11:53,259

talk to you you are the most courageous

193

00:12:01,139 --> 00:11:57,579

man i know and i also wish you a lot of

194

00:12:05,419 --> 00:12:01,149

a lot of space and everybody's cheering

195

00:12:08,699 --> 00:12:05,429

in the fanta gotten the audience and

196

00:12:14,249 --> 00:12:08,709

thank you thank you very much our man in

197

00:12:17,179 --> 00:12:14,259

space alexander guest oh wait thank you

198

00:12:20,460 --> 00:12:17,189

a lot the cook cook really reminded me

199

00:12:22,739 --> 00:12:20,470

running in the forest and i heard it for

200

00:12:24,540 --> 00:12:22,749

the last time it start steady for the

201  
00:12:32,960 --> 00:12:24,550  
last time before i could went to space

202  
00:12:41,519 --> 00:12:37,860  
to the whole audience all the best from

203  
00:12:47,340 --> 00:12:41,529  
space and I'm looking forward to be with

204  
00:12:48,840 --> 00:12:47,350  
you and be with you in your show it

205  
00:12:51,720 --> 00:12:48,850  
concludes the first portion of the

206  
00:13:01,970 --> 00:12:51,730  
events we have a few more questions now

207  
00:13:08,009 --> 00:13:01,980  
we have a few more question go edgell

208  
00:13:11,009 --> 00:13:08,019  
Alexander v Alexander expander we have

209  
00:13:16,650 --> 00:13:11,019  
me a lot old investment in public you

210  
00:13:20,910 --> 00:13:16,660  
have the best view from up there how

211  
00:13:24,210 --> 00:13:20,920  
will germany play against a cheer in the

212  
00:13:26,900 --> 00:13:24,220  
world cup tonight and what kind of team

213  
00:13:30,389 --> 00:13:26,910

do you feel mostly well i'm very

214

00:13:33,449 --> 00:13:30,399

convinced that the German team war

215

00:13:38,309 --> 00:13:33,459

progressed a little further because we

216

00:13:41,430 --> 00:13:38,319

had a bet with a American part of the

217

00:13:47,070 --> 00:13:41,440

crew and we're hoping to be in

218

00:13:50,340 --> 00:13:47,080

in the final together and I think we

219

00:13:56,010 --> 00:13:50,350

will go farther and all the best for our

220

00:14:00,980 --> 00:13:56,020

team the alex on de dust2 mr. loogan do

221

00:14:06,120 --> 00:14:00,990

you think that I just flies into space

222

00:14:08,100 --> 00:14:06,130

kids could be the same experience as you

223

00:14:10,680 --> 00:14:08,110

have on the space station this is the

224

00:14:14,570 --> 00:14:10,690

daily service TV on I think it would be

225

00:14:18,450 --> 00:14:14,580

very important important and positive if

226

00:14:22,590 --> 00:14:18,460

invest every person on earth could fly

227

00:14:26,160 --> 00:14:22,600

into space and to see this the earth is

228

00:14:29,220 --> 00:14:26,170

blue dot one time does liam is it from

229

00:14:33,150 --> 00:14:29,230

altus outside in space and this would

230

00:14:36,500 --> 00:14:33,160

change and our attitude towards the

231

00:14:40,500 --> 00:14:36,510

Earth and also raise awareness about

232

00:14:43,530 --> 00:14:40,510

pollution and of the of the earth and

233

00:14:47,670 --> 00:14:43,540

earth atmosphere yes yes mention hobbin

234

00:14:52,290 --> 00:14:47,680

and make us aware that we have this this

235

00:14:54,870 --> 00:14:52,300

only world and that we have to protect

236

00:14:57,390 --> 00:14:54,880

and because as the this is the only

237

00:15:01,280 --> 00:14:57,400

place in the universe that we can live

238

00:15:04,370 --> 00:15:01,290

on and that it is very important to

239

00:15:08,430 --> 00:15:04,380

design really protect us the blue planet

240

00:15:10,500 --> 00:15:08,440

and it would be very important for

241

00:15:17,970 --> 00:15:10,510

everybody to see this with their own

242

00:15:19,830 --> 00:15:17,980

eyes concludes the second portion of the

243

00:15:24,530 --> 00:15:19,840

event we have two more questions from

244

00:15:31,410 --> 00:15:28,740

yes yeah the doctor said am anfang hamdi

245

00:15:35,400 --> 00:15:31,420

deeply cahuenga you have told us that

246

00:15:39,300 --> 00:15:35,410

you were yeah I'm not so impressed about

247

00:15:41,550 --> 00:15:39,310

the views from the the space station

248

00:15:45,630 --> 00:15:41,560

from the space station and now you

249

00:15:47,940 --> 00:15:45,640

reflect on those views and what kind of

250

00:15:52,290 --> 00:15:47,950

thoughts do you have after four weeks in

251  
00:15:54,930 --> 00:15:52,300  
space Yemen the Jewish women valet

252  
00:16:00,270 --> 00:15:54,940  
omalley after you've been in space for

253  
00:16:04,200 --> 00:16:00,280  
while ain't you saw the earth as a whole

254  
00:16:08,750 --> 00:16:04,210  
you have a view that it goes a little

255  
00:16:13,770 --> 00:16:08,760  
bit more into detail like a fire or

256  
00:16:16,410 --> 00:16:13,780  
algae in front of the coast of China in

257  
00:16:20,700 --> 00:16:16,420  
the beginning you see those things but

258  
00:16:23,880 --> 00:16:20,710  
you cannot I'm just really understand

259  
00:16:27,210 --> 00:16:23,890  
what it means but after why you can't

260  
00:16:30,240 --> 00:16:27,220  
actually tell that something might be

261  
00:16:35,160 --> 00:16:30,250  
wrong and you see a lot more and much

262  
00:16:39,930 --> 00:16:35,170  
more details that possibly not is a nice

263  
00:16:42,570 --> 00:16:39,940

pretty and this could be with a nice

264

00:16:46,080 --> 00:16:42,580

ocean some pollution on the Earth's and

265

00:16:49,830 --> 00:16:46,090

if you realize that then these thoughts

266

00:16:54,530 --> 00:16:49,840

are of course not is great you're

267

00:16:58,170 --> 00:16:54,540

playing with your microphone in

268

00:17:01,670 --> 00:16:58,180

microgravity what about your body did

269

00:17:04,620 --> 00:17:01,680

you already get used to microgravity

270

00:17:07,380 --> 00:17:04,630

happened very fast and I'm very

271

00:17:10,970 --> 00:17:07,390

surprised that it went so fast and in

272

00:17:14,630 --> 00:17:10,980

Baikonur we had a lot of training

273

00:17:21,900 --> 00:17:14,640

programs to get used to microgravity

274

00:17:25,079 --> 00:17:21,910

like a chill down bed and I prepared

275

00:17:27,630 --> 00:17:25,089

very walls inside target fruit munsey's

276

00:17:30,960 --> 00:17:27,640

no Stuart just in microgravity it's

277

00:17:34,220 --> 00:17:30,970

about for the first two times forest for

278

00:17:37,200 --> 00:17:34,230

two days in microgravity it's very um

279

00:17:39,390 --> 00:17:37,210

move on so much money / tadacip I'm

280

00:17:42,150 --> 00:17:39,400

agouti schlafen hunter but the first two

281

00:17:44,820 --> 00:17:42,160

days in microgravity is getting soaked

282

00:17:46,860 --> 00:17:44,830

enough abyss not easy I wasn't used to

283

00:17:52,070 --> 00:17:46,870

it because the stomach was a little full

284

00:17:57,390 --> 00:17:52,080

and the sleep was not as well but

285

00:18:01,500 --> 00:17:57,400

actually you you learn to walk again in

286

00:18:04,130 --> 00:18:01,510

microgravity and your feet try to see

287

00:18:08,700 --> 00:18:04,140

does he have to catch some handrails and

288

00:18:12,060 --> 00:18:08,710

after sometime it is scrape and

289

00:18:14,310 --> 00:18:12,070

it's becoming easier and easier to move

290

00:18:16,470 --> 00:18:14,320

around and the space station the Amish

291

00:18:19,710 --> 00:18:16,480

or let's say it seemed an experiment you

292

00:18:22,350 --> 00:18:19,720

already told us you are running

293

00:18:26,100 --> 00:18:22,360

experiments with liquid flows but you

294

00:18:29,010 --> 00:18:26,110

have also conducted an experiment with

295

00:18:34,190 --> 00:18:29,020

soap bubbles for high school students

296

00:18:37,980 --> 00:18:34,200

and how important these experiments for

297

00:18:42,539 --> 00:18:37,990

60-some the space station what it was

298

00:18:45,630 --> 00:18:42,549

kind of a freak free time experiment and

299

00:18:48,330 --> 00:18:45,640

I was just around experiment

300

00:18:50,399 --> 00:18:48,340

experimenting around with soap bubbles d

301  
00:18:53,220 --> 00:18:50,409  
into me and I wanted to show the

302  
00:18:57,029 --> 00:18:53,230  
students that sometimes things are

303  
00:19:00,450 --> 00:18:57,039  
different than you think and I wasn't

304  
00:19:02,250 --> 00:19:00,460  
sure what he is to my face what the

305  
00:19:06,120 --> 00:19:02,260  
result would be and I found out that

306  
00:19:09,029 --> 00:19:06,130  
there's soap bubbles are behaving very

307  
00:19:13,620 --> 00:19:09,039  
differently than on the ground and if

308  
00:19:16,919 --> 00:19:13,630  
you would be money and viewers trying to

309  
00:19:21,690 --> 00:19:16,929  
combine two soap bubbles it does not

310  
00:19:23,880 --> 00:19:21,700  
work and also pricking a soap bubble is

311  
00:19:27,110 --> 00:19:23,890  
different and it's not like on the earth

312  
00:19:31,680 --> 00:19:27,120  
and it's very unusual and this is to

313  
00:19:34,529 --> 00:19:31,690

make make people think think about from

314

00:19:38,430 --> 00:19:34,539

a different perspective and that the

315

00:19:42,899 --> 00:19:38,440

result may not be as you expect it to be

316

00:19:46,970 --> 00:19:42,909

dismiss and this also has some some

317

00:19:52,470 --> 00:19:46,980

views Gupta for the earth that she could

318

00:19:56,220 --> 00:19:52,480

make con products product design or

319

00:19:58,260 --> 00:19:56,230

materials you could produce completely

320

00:20:02,370 --> 00:19:58,270

different on a space station than on

321

00:20:05,580 --> 00:20:02,380

earth because for example in for soap

322

00:20:09,360 --> 00:20:05,590

bubbles the wall of the sope book can be

323

00:20:12,180 --> 00:20:09,370

made a lot bigger than on earth and that

324

00:20:14,610 --> 00:20:12,190

could be used for processes and

325

00:20:17,399 --> 00:20:14,620

materials on earth thank you very much

326

00:20:22,900 --> 00:20:17,409

thank Alexander station this concludes

327

00:20:30,110 --> 00:20:26,090

ala scooted to look care to air their uh

328

00:20:31,730 --> 00:20:30,120

as well luck to earth we want good

329

00:20:37,040 --> 00:20:31,740

luck for Earth it was nice to talk to

330

00:20:38,690 --> 00:20:37,050

you and good luck from the International

331

00:20:42,260 --> 00:20:38,700

International Space Station that

332

00:20:45,110 --> 00:20:42,270

concludes the event thank you thank you

333

00:20:46,550 --> 00:20:45,120

ISA and zdf studio education we are now