



1
00:00:00,000 --> 00:00:02,980

>>> IT'S PARTICULARLY FITTING ON THIS DAY
THAT WE'RE ABLE TO

2
00:00:02,980 --> 00:00:06,060

BRING YOU THIS PROGRAM FROM OUR EXHIBIT ABOUT
THE SPACE

3
00:00:06,060 --> 00:00:10,719

STATION, THE INTERNATIONAL SPACE STATION,
THE SPACE SHUTTLE

4
00:00:10,719 --> 00:00:16,309

AND FUTURE HUMAN SPACEFLIGHT BECAUSE WE ARE
DELIGHTED TO HAVE AS OUR SPEAKER TODAY, VICTOR

5
00:00:16,309 --> 00:00:19,340

GLOVER, WHO
IS A NASA ASTRONAUT.

6
00:00:19,340 --> 00:00:22,230

HE COMES TO US FROM THE BACKGROUND OF THE
NAVY WHERE HE

7
00:00:22,230 --> 00:00:27,519

WAS A PILOT OF F/A-18'S, A NAVAL AVIATOR.

8
00:00:27,519 --> 00:00:30,650

THEY DON'T JUST HAVE PILOTS, THEY HAVE AVIATORS.

9
00:00:30,650 --> 00:00:35,790

AND WHO IS NOW A PART OF THE 2013 CLASS OF
ASTRONAUTS, AN

10
00:00:35,790 --> 00:00:40,000

ELITE GROUP OF EIGHT WHO HAVE BEEN PICKED
TO REALLY TRAIN

11
00:00:40,000 --> 00:00:43,000

FOR THE NEXT STEPS IN HUMAN SPACEFLIGHT, WHICH
IS VERY

12

00:00:43,000 --> 00:00:46,329

MUCH WHAT WE ARE ABOUT HERE AT THE MUSEUM
AND SPECIFICALLY

13

00:00:46,329 --> 00:00:47,789

HERE IN THIS GALLERY.

14

00:00:47,789 --> 00:00:53,170

I'M DELIGHTED TO WELCOME TO THE STAGE VICTOR
GLOVER.

15

00:00:53,170 --> 00:01:00,160

[APPLAUSE]

>> VICTOR GLOVER: THANK YOU, MARGARET.

16

00:01:00,160 --> 00:01:01,160

THANK YOU.

17

00:01:01,160 --> 00:01:02,160

THANK YOU VERY MUCH.

18

00:01:02,160 --> 00:01:03,160

THANK YOU.

19

00:01:03,160 --> 00:01:04,160

THANK YOU FOR COMING OUT ON A SATURDAY TO
BE HERE WITH

20

00:01:04,160 --> 00:01:07,190

US AND THANK YOU TO THE SMITHSONIAN FOR HOSTING
THIS

21

00:01:07,190 --> 00:01:08,190

EVENT.

22

00:01:08,190 --> 00:01:10,190

THANK YOU TO ALL OF THE SPONSORS AND ESPECIALLY,
THANK

23

00:01:10,190 --> 00:01:13,760

YOU TO THE FOLKS IN THE ROOM FOR MAKING THIS
HAPPEN AND

24

00:01:13,760 --> 00:01:15,360

WORKING HARD TO SEE THIS.

25

00:01:15,360 --> 00:01:18,060

WHAT WE ARE HERE TO DO -- THEY INVITED ME
TO SPEAK AT

26

00:01:18,060 --> 00:01:19,800

THIS EVENT, HOWEVER.

27

00:01:19,800 --> 00:01:22,120

I DON'T CONSIDER MYSELF TO BE IN THE CATEGORY
OF THE

28

00:01:22,120 --> 00:01:26,270

SPACE AND AVIATION PIONEERS, BUT I'M STANDING
UP HERE

29

00:01:26,270 --> 00:01:29,120

BECAUSE OF THE WORK OF THOSE AVIATION AND
SPACE

30

00:01:29,120 --> 00:01:30,120

PIONEERS.

31

00:01:30,120 --> 00:01:33,680

RIGHT BEHIND ME IS A JACKET FROM SALLY WRITING
GUIDE

32

00:01:33,680 --> 00:01:36,079

BLUE, THE FIRST AMERICAN WOMAN IN SPACE AND
THE FIRST

33

00:01:36,079 --> 00:01:38,180

AFRICAN-AMERICAN IN SPACE AND IS BECAUSE OF
FOLKS LIKE

34

00:01:38,180 --> 00:01:41,040

THAT -- AND WHOLE BUNCH OF FOLKS ACROSS THE
PLANET --

35

00:01:41,040 --> 00:01:43,550

THAT WE ARE ABLE TO DO WHAT WE DO.

36

00:01:43,550 --> 00:03:25,000

THANK YOU FOR COMING OUT THIS MORNING.

37

00:03:25,000 --> 00:05:19,759

[MUSIC]

>>> YOU ARE WATCHING NASA TV.

38

00:05:19,759 --> 00:05:23,360

>>> WELCOME.

39

00:05:23,360 --> 00:05:32,250

THANK YOU FOR COMING.

40

00:05:32,250 --> 00:05:55,789

I'M GOING TO

41

00:05:55,789 --> 00:05:59,789

TALK TO LITTLE BIT ABOUT THE TRAINING, THE
BACKGROUND, BEFORE GOT TO NASA AND WHAT WE

42

00:05:59,789 --> 00:06:01,020

HAVE DONE
SINCE WE SHOWED UP.

43

00:06:01,020 --> 00:06:04,480

MY CLASS IN 2013.

44

00:06:04,480 --> 00:06:07,810
ALL OF YOU ADULTS HERE, THANK YOU FOR COMING.

45
00:06:07,810 --> 00:06:09,681
BUT I AM REALLY GRATEFUL FOR ALL OF THESE
KIDS THAT YOU

46
00:06:09,681 --> 00:06:11,789
BROUGHT AND SO I'M GOING TO SPEND THE NEXT
FEW MINUTES

47
00:06:11,789 --> 00:06:13,560
TALKING TO THEM.

48
00:06:13,560 --> 00:06:16,040
IF WE IGNORE TO GROWN-UPS, I APOLOGIZE BUT
THIS IS FOR

49
00:06:16,040 --> 00:06:17,110
THE KIDS.

50
00:06:17,110 --> 00:06:21,130
SO I LIKE TO START WITH THIS QUESTION: I KNOW
THEY

51
00:06:21,130 --> 00:06:23,710
TELL YOU IN SCHOOL TO HAVE YOUR MANNERS AND
RAISE YOUR

52
00:06:23,710 --> 00:06:24,710
HAND.

53
00:06:24,710 --> 00:06:25,819
DON'T TALK OUT OF TURN.

54
00:06:25,819 --> 00:06:29,160
BUT I WANT YOU TO YELL OUT, OKAY.

55
00:06:29,160 --> 00:06:31,100

IF YOU KNOW WHAT YOU WANT TO BECOME I WANT
YOU TO YELL

56

00:06:31,100 --> 00:06:32,300

IT OUT?

57

00:06:32,300 --> 00:06:33,389

ANYBODY?

58

00:06:33,389 --> 00:06:34,389

WHAT YOU WANT TO BE.

59

00:06:34,389 --> 00:06:35,389

>> AND ASTRONAUT.

60

00:06:35,389 --> 00:06:36,389

>> ASTRONAUT!

61

00:06:36,389 --> 00:06:37,389

I LOVE IT!

62

00:06:37,389 --> 00:06:38,389

I AM DOING GOOD RECRUITING.

63

00:06:38,389 --> 00:06:39,409

WHAT ELSE?

64

00:06:39,409 --> 00:06:40,430

>> ASTRONAUT.

65

00:06:40,430 --> 00:06:43,509

>> AND OTHER ASTRONAUT!

66

00:06:43,509 --> 00:06:46,520

I'M SEEING THE TREND.

67

00:06:46,520 --> 00:06:47,520

WHAT YOU WANT TO BE?

68

00:06:47,520 --> 00:06:48,520

>> ASTRONAUT!

69

00:06:48,520 --> 00:06:49,520

>> ANOTHER ONE.

70

00:06:49,520 --> 00:06:51,699

NASA IS GOING TO HAVE A LOT OF APPLICATIONS
THE NEXT

71

00:06:51,699 --> 00:06:53,550

TIME WE HIRE ASTRONAUTS.

72

00:06:53,550 --> 00:06:56,550

THERE'S A LOT OF PARTS OF THE ROOM OR I'M
NOT HEARING

73

00:06:56,550 --> 00:07:01,400

ANSWERS FROM AND I THINK THE MOST COMMON ANSWER
TO THIS

74

00:07:01,400 --> 00:07:04,170

QUESTION IS -- WHAT YOU THINK THAT'S GONNA
SAY?

75

00:07:04,170 --> 00:07:05,170

>> I DON'T KNOW.

76

00:07:05,170 --> 00:07:09,039

>> SAY THAT AGAIN?

77

00:07:09,039 --> 00:07:10,039

>> I DON'T KNOW.

78

00:07:10,039 --> 00:07:11,039

>> I DON'T KNOW EITHER.

79

00:07:11,039 --> 00:07:13,770
[LAUGHTER] I DON'T KNOW.

80
00:07:13,770 --> 00:07:16,139
THAT'S THE MOST COMMON RESPONSE I HEAR.

81
00:07:16,139 --> 00:07:17,610
YOU KNOW WHAT?

82
00:07:17,610 --> 00:07:18,889
IT'S OKAY.

83
00:07:18,889 --> 00:07:22,430
I'M STANDING UP HERE WEARING MY PAJAMAS AND
I GO HOME

84
00:07:22,430 --> 00:07:26,199
AND PLAY WITH REALLY EXPENSIVE TOYS AND VIDEOGAME
TYPE

85
00:07:26,199 --> 00:07:27,199
THINGS.

86
00:07:27,199 --> 00:07:28,199
THESE ARE REALLY SOPHISTICATED SYMPTOMS – SYSTEMS,
BUT

87
00:07:28,199 --> 00:07:30,819
IT'S KIND OF LIKE PLAYING WITH VIDEO GAMES.

88
00:07:30,819 --> 00:07:32,500
SO I DON'T KNOW WHAT I WANT TO BE THERE.

89
00:07:32,500 --> 00:07:34,620
I WANT TO TALK TO ABOUT THINGS YOU CAN PUT
INTO

90
00:07:34,620 --> 00:07:37,350
PRACTICE NOW.

91
00:07:37,350 --> 00:07:39,020
I DO NOT KNOW HOW SMART I AM.

92
00:07:39,020 --> 00:07:40,270
PEOPLE SAY YOU MUST BE SMART.

93
00:07:40,270 --> 00:07:44,639
I DON'T KNOW HOW SMART I AM, BUT I CAN CONTROL
THINGS

94
00:07:44,639 --> 00:07:46,479
AND THESE ARE THINGS YOU CAN CONTROL AND YOU
CAN PUT

95
00:07:46,479 --> 00:07:47,789
THEM IN PRACTICE.

96
00:07:47,789 --> 00:07:50,550
AND YOU SHOULD PUT THEM IN PRACTICE ALL THE
TIME AND IT

97
00:07:50,550 --> 00:07:55,780
IS TO BE A LIFELONG LEARNER AND TO BE A GOOD
PERSON.

98
00:07:55,780 --> 00:07:57,380
WE WILL TALK MORE ABOUT THAT.

99
00:07:57,380 --> 00:08:00,050
I'M GOING TO TELL YOU STORIES ABOUT MY EDUCATION
AND MY

100
00:08:00,050 --> 00:08:03,009
CAREER AND WHAT GOT ME TO NASA AND WHAT THE
TRAINING IS

101
00:08:03,009 --> 00:08:06,150
LIKE, BUT I WANT YOU TO REMEMBER THAT I'M

TELLING YOU

102

00:08:06,150 --> 00:08:08,720

THE STORIES BECAUSE I'M HOPING TO CONNECT WITH

103

00:08:08,720 --> 00:08:11,810

SOMETHING THAT YOU HAVE DONE OR SEEN.

104

00:08:11,810 --> 00:08:13,360

WE'VE GOT HIGH SCHOOL STUDENTS IN THE AUDIENCE.

105

00:08:13,360 --> 00:08:14,360

UH-UH (AFFIRMATIVE)..

106

00:08:14,360 --> 00:08:16,000

AND IF YOU PLAN ON GOING TO COLLEGE?

107

00:08:16,000 --> 00:08:17,000

UH-UH (AFFIRMATIVE)..

108

00:08:17,000 --> 00:08:18,000

DID THAT.

109

00:08:18,000 --> 00:08:19,430

IF YOU TIMES.

110

00:08:19,430 --> 00:08:20,759

AND I'VE HAD A CAREER THAT I LOVE.

111

00:08:20,759 --> 00:08:22,889

I HAVEN'T ACTUALLY WORKED A DAY IN MY LIFE.

112

00:08:22,889 --> 00:08:25,220

I LOVE WHAT I DO AND I WOULD PAY MONEY TO DO IT.

113

00:08:25,220 --> 00:08:28,110

SO MAYBE THERE'S SOMETHING THAT YOU ARE THINKING ABOUT

114
00:08:28,110 --> 00:08:30,720
DOING THAT YOU CAN CONNECT WITHIN THE STORIES,
BUT THE

115
00:08:30,720 --> 00:08:33,600
PURPOSE OF THESE STORIES IS YOU.

116
00:08:33,600 --> 00:08:34,600
OKAY?

117
00:08:34,600 --> 00:08:35,600
I CAME HERE.

118
00:08:35,600 --> 00:08:36,600
NASA SENT ME HERE.

119
00:08:36,600 --> 00:08:40,190
THE SMITHSONIAN ASKED ME TO COME YOU TO SPEND
TIME WITH

120
00:08:40,190 --> 00:08:41,190
YOU.

121
00:08:41,190 --> 00:08:42,610
YOUR PARENTS WOKE YOU UP AND THEY MADE YOU
BRUSH YOUR

122
00:08:42,610 --> 00:08:44,640
TEETH AND GET DRESSED AND COMB YOUR HAIR,
BUT THEY

123
00:08:44,640 --> 00:08:47,260
BROUGHT YOU HERE FOR YOU.

124
00:08:47,260 --> 00:08:49,560
SO REMEMBER, AND THEN TELL YOU THE STORIES.

125
00:08:49,560 --> 00:08:51,510
I WANT YOU TO THINK ABOUT SOMETHING THAT YOU
CAN

126
00:08:51,510 --> 00:08:52,510
CONNECT TO.

127
00:08:52,510 --> 00:08:54,110
I HOPE SO.

128
00:08:54,110 --> 00:08:57,890
I'M ORIGINALLY FROM CALIFORNIA.

129
00:08:57,890 --> 00:09:01,680
THIS IS ONE OF MY FAVORITE PICTURES, COUSINS
AND UNCLE

130
00:09:01,680 --> 00:09:04,710
AND ANY IDEA WHICH ONE OF THOSE IS ME?

131
00:09:04,710 --> 00:09:05,710
[LAUGHTER].

132
00:09:05,710 --> 00:09:09,760
IT'S EASY TO SEE BECAUSE I HAVE A WHOLE LOT
OF HERE.

133
00:09:09,760 --> 00:09:12,920
[LAUGHTER] THERE IT IS.

134
00:09:12,920 --> 00:09:13,920
THAT GUY.

135
00:09:13,920 --> 00:09:14,920
ANOTHER PICTURE WITH THEIR.

136
00:09:14,920 --> 00:09:17,850

I'M GOING TO PUT THE PICTURES UP WITH MY HAIR.

137

00:09:17,850 --> 00:09:20,500

SO I WANT TO TELL YOU A STORY WHEN I WAS IN
ELEMENTARY

138

00:09:20,500 --> 00:09:23,080

SCHOOL.

139

00:09:23,080 --> 00:09:26,950

I WAS IN FIFTH GRADE AND WE HAD A PROGRAM
CALLED MESA,

140

00:09:26,950 --> 00:09:29,370

MATHEMATICS ENGINEERING AND SCIENCE ACHIEVEMENT.

141

00:09:29,370 --> 00:09:33,890

WHAT GOT ME INTO IT WAS BUILDING CARS.

142

00:09:33,890 --> 00:09:36,690

BUILDING THINGS OUT OF POPSICLE STICKS AND
THEN THEY

143

00:09:36,690 --> 00:09:39,149

WOULD STACK BRICKS ON TOP OF IT UNTIL I BROKE.

144

00:09:39,149 --> 00:09:41,910

I WAS IN THERE TO DO STUFF WITH MY HANDS,
MAKE A MESS

145

00:09:41,910 --> 00:09:43,510

AND BREAK STUFF.

146

00:09:43,510 --> 00:09:47,270

BUT THEY SNUCK IN SCIENCE AND MATH, MAKING
AND GIVING

147

00:09:47,270 --> 00:09:50,230

SPEECHES, WRITING ESSAYS AND HAD TO LEARN

ABOUT THAT,

148

00:09:50,230 --> 00:09:51,230

TOO.

149

00:09:51,230 --> 00:09:52,230

MY ADVISOR, MR.

150

00:09:52,230 --> 00:09:57,310

HARGROVE, HE WAS ONE OF OUR FIFTH GRADE
TEACHERS.

151

00:09:57,310 --> 00:10:00,399

AND HE KNEW THAT I HAD A TENDENCY -- I WOULD
DO WELL ON

152

00:10:00,399 --> 00:10:04,560

MY TEST, BUT I MIGHT TURN MY HOMEWORK, MAYBE
NOT.

153

00:10:04,560 --> 00:10:07,510

AND HE WAS GIVING ME A PEP TALK, ENCOURAGING
ME TO DO

154

00:10:07,510 --> 00:10:11,970

THE WORK AND BE ALL THAT I CAN BE AND HE SAID
YOU KNOW,

155

00:10:11,970 --> 00:10:18,160

IF YOU WORK HARD YOU WOULD BE A GREAT ENGINEER.

156

00:10:18,160 --> 00:10:23,680

I HAVE TO ADMIT, THAT IN FIFTH GRADE, I DIDN'T
KNOW

157

00:10:23,680 --> 00:10:25,080

WHAT IT MEANT TO BE AN ENGINEER.

158

00:10:25,080 --> 00:10:27,140

I THOUGHT IT MEANT DRIVING TRAINS.

159

00:10:27,140 --> 00:10:29,390

[LAUGHTER] THAT'S FUNNY NOW.

160

00:10:29,390 --> 00:10:31,800

BUT THAT'S TRUE.

161

00:10:31,800 --> 00:10:33,779

AND I DIDN'T KNOW WHAT IT WAS.

162

00:10:33,779 --> 00:10:36,180

AND SO I DIDN'T HAVE A MENTOR THAT STUDIED
ENGINEERING

163

00:10:36,180 --> 00:10:37,560

IN COLLEGE.

164

00:10:37,560 --> 00:10:41,780

BUT HIS BELIEF IN ME MADE ME THINK THAT I
COULD DO IT.

165

00:10:41,780 --> 00:10:44,440

AND TO THIS DAY, I'M STILL TRYING TO LIVE
UP TO THAT

166

00:10:44,440 --> 00:10:45,440

BELIEF THAT MR.

167

00:10:45,440 --> 00:10:46,740

HARGROVE HOW TO ME.

168

00:10:46,740 --> 00:10:48,420

I KNOW I SAID IT WAS GOING TO TALK TO KIDS
BUT YOU

169

00:10:48,420 --> 00:10:51,750

ADULTS IN THE ROOM, ANY EDUCATORS?

170

00:10:51,750 --> 00:10:53,130

PARENTS YOU SHOULD RAISE YOUR HAND.

171

00:10:53,130 --> 00:10:55,180

WE ARE EDUCATING.

172

00:10:55,180 --> 00:10:59,209

THANK YOU FOR YOUR SERVICE AND SET THOSE BARS
HIGH.

173

00:10:59,209 --> 00:11:01,470

AND BELIEVE IN THOSE KIDS, BUT DON'T FORGET
TO

174

00:11:01,470 --> 00:11:04,000

COMMUNICATE YOUR BELIEFS IN THEM BECAUSE WHAT
MR.

175

00:11:04,000 --> 00:11:06,060

HARGROVE SAID TO ME IN FIFTH GRADE STILL DRIVES
ME

176

00:11:06,060 --> 00:11:08,290

TODAY AND I WOULDN'T BE STANDING APPEAR IF
IT WASN'T

177

00:11:08,290 --> 00:11:10,760

FOR THAT CONVERSATION.

178

00:11:10,760 --> 00:11:15,800

SO A STORY FROM HIGH SCHOOL, I WAS -- EARLIER
PEOPLE

179

00:11:15,800 --> 00:11:17,302

ASKED WHAT KIND OF STUDENT I WAS.

180

00:11:17,302 --> 00:11:18,302

I THINK I WAS AVERAGE.

181
00:11:18,302 --> 00:11:21,810
I WAS GOOD IN MATH BUT I WASN'T GOOD IN THE
STUDY

182
00:11:21,810 --> 00:11:23,620
HABITS AND SKILLS AND DOING ALL THE WORK.

183
00:11:23,620 --> 00:11:28,649
I WAS INVOLVED IN COMMUNITY SERVICE.

184
00:11:28,649 --> 00:11:30,420
I WAS REALLY GOOD IN ATHLETICS.

185
00:11:30,420 --> 00:11:32,230
I LOVE TO WRESTLE, PLAY FOOTBALL.

186
00:11:32,230 --> 00:11:34,290
AND SO YOU SQUISH ALL THAT TOGETHER.

187
00:11:34,290 --> 00:11:38,260
I THINK I WAS AN AVERAGE STUDENT.

188
00:11:38,260 --> 00:11:45,950
BUT ONE OF MY BEST EXPERIENCES HAPPENED IN
A CALCULUS

189
00:11:45,950 --> 00:11:46,950
CLASS.

190
00:11:46,950 --> 00:11:47,950
I'LL TELL YOU ABOUT IT.

191
00:11:47,950 --> 00:11:50,860
I WANT TO SHOW YOU PICTURES.

192
00:11:50,860 --> 00:11:53,100
THE PICTURES UP THERE ARE SOME OF MY GOOD
FRIENDS FROM

193

00:11:53,100 --> 00:11:54,950
HIGH SCHOOL.

194

00:11:54,950 --> 00:11:56,000
I WAS A NORMAL KID.

195

00:11:56,000 --> 00:11:58,589
I PUT THE FIRST PICTURE ABOVE ME IN MY CAP
AND GOWN

196

00:11:58,589 --> 00:12:00,139
BECAUSE I GRADUATED.

197

00:12:00,139 --> 00:12:02,340
THAT'S MOST IMPORTANT.

198

00:12:02,340 --> 00:12:06,190
YOUR PARENTS ARE SENDING YOU THERE FOR A REASON.

199

00:12:06,190 --> 00:12:09,579
AND SO, I GRADUATED, BUT I WAS A NORMAL KID.

200

00:12:09,579 --> 00:12:14,470
I HAD FUN AND WENT TO THE MOVIES AND I HAD
EXTRACURRICULAR ACTIVITIES AND HOBBIES BUT

201

00:12:14,470 --> 00:12:16,589
AT THE END
OF THE DAY GOT THE DIPLOMA.

202

00:12:16,589 --> 00:12:18,370
THAT'S WHAT YOUR PARENTS ARE SENDING YOU THEREFORE.

203

00:12:18,370 --> 00:12:20,600
AND TO GROW.

204

00:12:20,600 --> 00:12:23,740

BACK TO THIS PRECALCULUS CLASS.

205

00:12:23,740 --> 00:12:24,740

MR.

206

00:12:24,740 --> 00:12:26,290

ROBINSON.

207

00:12:26,290 --> 00:12:29,010

MY PRECALCULUS TEACHER WAS ALSO LIKE MR.

208

00:12:29,010 --> 00:12:31,340

HARGROVE,

TRYING TO ENCOURAGE ME TO GET THE BEST OUT

209

00:12:31,340 --> 00:12:32,340

OF ME.

210

00:12:32,340 --> 00:12:34,080

HE DID SOMETHING TO CHANGE MY LIFE.

211

00:12:34,080 --> 00:12:36,589

WE WERE WORKING ON ADDING NUMBERS IN A SERIES,
ADDED

212

00:12:36,589 --> 00:12:39,320

THE NUMBERS FROM 1 TO 4.

213

00:12:39,320 --> 00:12:43,540

I WAS DOING MY HOMEWORK.

214

00:12:43,540 --> 00:12:45,760

AND I NOTICED THAT IF I WRITE THE NUMBERS
SOUND LIKE

215

00:12:45,760 --> 00:12:48,330

YOU SEE ON THE SCREEN THERE, THEY MADE A SHAPE.

216

00:12:48,330 --> 00:12:50,430
WHAT SHAPE IS THAT?

217
00:12:50,430 --> 00:12:51,860
>> IT'S A TRIANGLE.

218
00:12:51,860 --> 00:12:53,200
THAT'S RIGHT.

219
00:12:53,200 --> 00:12:57,550
AND TO FIND THE AREA OF A TRIANGLE YOU TURN
IT INTO A

220
00:12:57,550 --> 00:12:58,550
RECTANGLE.

221
00:12:58,550 --> 00:13:01,730
SO IF I'M ADDING 1 TO 4 NOW I HAVE FOUR BY
FIVE AND A

222
00:13:01,730 --> 00:13:02,730
RECTANGLE.

223
00:13:02,730 --> 00:13:06,190
I MULTIPLY THAT BY 20 AND DIVIDED BY TWO AND
IT'S 10.

224
00:13:06,190 --> 00:13:10,620
I NOTICED THAT MATTER – PATTERN.

225
00:13:10,620 --> 00:13:12,820
THAT THIS PATTERN WOULD WORK AND I COULD FIGURE
OUT HOW

226
00:13:12,820 --> 00:13:16,000
TO ADD THOSE NUMBERS UP WITH THAT FORMULA.

227
00:13:16,000 --> 00:13:19,180
SO ADDING THE NUMBERS FROM 1 TO 10 YOU TAKE

10 TIMES

228

00:13:19,180 --> 00:13:20,180
11÷255.

229

00:13:20,180 --> 00:13:24,139
ALL THE WAY TO 10.

230

00:13:24,139 --> 00:13:26,120
AND I WAS LIKE WOW.

231

00:13:26,120 --> 00:13:28,380
I WAS IN HIS CLASSROOM SQUALLING NUMBERS AND
PICTURES

232

00:13:28,380 --> 00:13:30,139
ON THE BOARD AND MR.

233

00:13:30,139 --> 00:13:32,850
ROBINSON WALKED IN AND SEES THIS
ON HIS BOARD.

234

00:13:32,850 --> 00:13:33,850
I SAID MR.

235

00:13:33,850 --> 00:13:35,500
ROBINSON, I DISCOVERED A FORMULA.

236

00:13:35,500 --> 00:13:38,390
I DON'T KNOW WHAT WE'RE GONNA CALL IT.

237

00:13:38,390 --> 00:13:41,340
THE VICTORIAN THEOREM.

238

00:13:41,340 --> 00:13:44,020
AND HE TAKES THE CALCULUS BOOK AND HE FLIPS
A FEW PAGES

239

00:13:44,020 --> 00:13:47,670
AND SHOWS ME THAT FORMULA.

240
00:13:47,670 --> 00:13:49,079
I WAS LIKE OH.

241
00:13:49,079 --> 00:13:54,279
[LAUGHTER] AND I THINK HE SAW LITTLE DISAPPOINTMENT
LIKE AT 16 I WAS ACTUALLY LIKE THINKING I

242
00:13:54,279 --> 00:13:56,520
HAD
DISCOVERED SOMETHING NOBODY ELSE HAD CHANGED.

243
00:13:56,520 --> 00:13:58,800
HE DID SOMETHING THAT CHANGED MY LIFE THE.

244
00:13:58,800 --> 00:14:02,149
HE SAID WHY DON'T YOU TEACH THAT TO YOUR CLASSMATES?

245
00:14:02,149 --> 00:14:04,430
YOU EXPLAIN IT.

246
00:14:04,430 --> 00:14:07,380
THAT WAS ONE OF THE FIRST MOMENTS THAT I THOUGHT
I KNOW

247
00:14:07,380 --> 00:14:11,920
PEOPLE SAID I NEED TO GO TO SCHOOL AND STUDY
ENGINEERING, BUT MAYBE I CAN DO IT.

248
00:14:11,920 --> 00:14:13,410
ABI CAN DO THE WORK.

249
00:14:13,410 --> 00:14:15,230
I CAN TELL YOU STORIES LIKE THAT FOR AN HOUR.

250
00:14:15,230 --> 00:14:16,450
BUT I WILL KEEP YOU.

251

00:14:16,450 --> 00:14:18,630

I KNOW THE SEATS ARE A LITTLE HARD.

252

00:14:18,630 --> 00:14:24,540

SO I GRADUATE FROM HIGH SCHOOL AND I GO TO
-- I STUDIED

253

00:14:24,540 --> 00:14:25,540

ENGINEERING.

254

00:14:25,540 --> 00:14:26,680

I WAS ON THE WRESTLING TEAM.

255

00:14:26,680 --> 00:14:27,680

I WAS ON THE FOOTBALL TEAM.

256

00:14:27,680 --> 00:14:31,740

I HAD A GREAT TIME THERE AND I MET THIS GIRL.

257

00:14:31,740 --> 00:14:34,180

THAT'S A PICTURE OF SHE ANTI-TUTORING.

258

00:14:34,180 --> 00:14:36,899

WE USED TO GO TO JUNIOR HIGH SCHOOLS AND HIGH
SCHOOLS

259

00:14:36,899 --> 00:14:40,720

TO TALK TO YOUNG KIDS ABOUT THE IMPORTANCE
OF SCIENCE,

260

00:14:40,720 --> 00:14:43,050

TECHNOLOGY, ENGINEERING AND MATH.

261

00:14:43,050 --> 00:14:45,560

YOU REMEMBER THAT PROGRAM?

262

00:14:45,560 --> 00:14:46,899

MESA.

263
00:14:46,899 --> 00:14:50,510
I WAS A MESA COUNSELOR WHEN I WAS IN COLLEGE.

264
00:14:50,510 --> 00:14:53,050
AND I USED TO TALK TO THOSE KIDS ABOUT MAKING
BRIDGES

265
00:14:53,050 --> 00:14:56,510
THIS IS ABOUT MAKING MOUSETRAP CARS.

266
00:14:56,510 --> 00:14:58,620
IT'S GOT AN ANTENNA ON IT.

267
00:14:58,620 --> 00:15:01,040
WE CAN BUILD MOUSETRAP LATER OUT SIDE.

268
00:15:01,040 --> 00:15:02,709
THEY'VE GOT SUPPLIES.

269
00:15:02,709 --> 00:15:06,889
SHE AND I TRAVELED ALL OVER CALIFORNIA AND
WE TRAVELED

270
00:15:06,889 --> 00:15:09,589
SO MUCH AND WE STARTED DATING AND NOW WE ARE
MARRIED

271
00:15:09,589 --> 00:15:12,410
AND HAVE FOUR KIDS, FOUR DAUGHTERS THAT WE
ARE BLESSED

272
00:15:12,410 --> 00:15:13,410
WITH.

273
00:15:13,410 --> 00:15:14,410
I'M GRATEFUL FOR THOSE DAYS.

274
00:15:14,410 --> 00:15:16,070
THIS IS SOMETHING THAT'S BEEN IMPORTANT TO
ME.

275
00:15:16,070 --> 00:15:19,089
I LOVE DOING THIS FROM AS EARLY AS I CAN REMEMBER.

276
00:15:19,089 --> 00:15:23,490
THE OTHER PICTURE IS GRADUATING.

277
00:15:23,490 --> 00:15:25,519
THE MOST IMPORTANT THING I GOT OUT OF COLLEGE
WITH MY

278
00:15:25,519 --> 00:15:27,459
WIFE, BUT I GOT MY DEGREE.

279
00:15:27,459 --> 00:15:30,339
I WENT TO COLLEGE AND I FINISHED WHAT I STARTED.

280
00:15:30,339 --> 00:15:32,459
IT'S IMPORTANT TO FINISH WHAT YOU START.

281
00:15:32,459 --> 00:15:35,670
AND SO, I LEFT CAL POLY.

282
00:15:35,670 --> 00:15:37,350
I WAS IN THE NAVY.

283
00:15:37,350 --> 00:15:40,410
JOIN THE NAVY.

284
00:15:40,410 --> 00:15:42,630
I GOT COMMISSIONED IN 1999.

285
00:15:42,630 --> 00:15:46,140
GOT MY WINGS AND 2001 AND PICTURE, WITH ALL
THOSE GUYS

286
00:15:46,140 --> 00:15:49,600
IN THE GREEN, WAS THE FIRST TIME WE TOOK THE
F-18 TO

287
00:15:49,600 --> 00:15:53,110
THE BOAT TO LEARN TO LANDED ON AN AIRCRAFT
CARRIER.

288
00:15:53,110 --> 00:15:55,510
THAT'S MY FIRST TIME BEING ON AN AIRCRAFT
CARRIER.

289
00:15:55,510 --> 00:15:57,389
WHAT A GOOD MEMORY.

290
00:15:57,389 --> 00:15:59,630
AND THEN I SHOWED UP INTO A SQUADRON AND GOT
TO FLY

291
00:15:59,630 --> 00:16:04,880
THIS MACHINE FOR THREE YEARS LIVING IN VIRGINIA
BEACH.

292
00:16:04,880 --> 00:16:07,389
THIS IS A PICTURE FROM OPERATION IRAQI FREEDOM.

293
00:16:07,389 --> 00:16:12,720
THIS IS OVER A REGION WHERE WE WOULD AIR REFUELING
AND

294
00:16:12,720 --> 00:16:15,320
THE GUY HAD A CAMERA AND HE SAID POP A FLARE
AND I'LL

295
00:16:15,320 --> 00:16:16,320
TAKE A PICTURE.

296
00:16:16,320 --> 00:16:21,390

THAT'S A GOOD PICTURE.
2004, AND THEN I LEFT THERE AND I GOT TO GO

297
00:16:21,390 --> 00:16:22,390
TO TEST

298
00:16:22,390 --> 00:16:23,390
PILOT SCHOOL.

299
00:16:23,390 --> 00:16:27,410
I SPENT THE YEAR LEARNING AIRCRAFT SYSTEMS
AND WEAPON

300
00:16:27,410 --> 00:16:28,410
SYSTEMS.

301
00:16:28,410 --> 00:16:31,579
I GOT TO BE A TEST PILOT AND THEN I WENT BACK
TO SCHOOL

302
00:16:31,579 --> 00:16:33,139
AGAIN.

303
00:16:33,139 --> 00:16:35,250
THE NAVAL POSTGRADUATE SCHOOL.

304
00:16:35,250 --> 00:16:39,820
AND I TOOK A MASTERS DEGREE PART-TIME AND
THEN I WENT

305
00:16:39,820 --> 00:16:41,470
TO SCHOOL FULL-TIME.

306
00:16:41,470 --> 00:16:44,800
THE NAVY SENT ME TO STUDY POLITICS AND INFORMATION
AND

307
00:16:44,800 --> 00:16:48,360
MILITARY USE AND I WENT -- WE CALL IT WAR

COLLEGE.

308

00:16:48,360 --> 00:16:52,050

SO I WENT TO SCHOOL AGAIN AND THEN WHEN I
FINISH THAT,

309

00:16:52,050 --> 00:16:54,470

PACKED UP THE FAMILY AND WE MOVED TO JAPAN.

310

00:16:54,470 --> 00:16:55,540

I WENT TO ANOTHER SQUADRON.

311

00:16:55,540 --> 00:17:01,490

I FLEW ON THE GEORGE WASHINGTON FOR TWO YEARS,
DEPLOYING WITH SOME FOLKS THAT ARE HERE IN

312

00:17:01,490 --> 00:17:05,419

THE AUDIENCE
AND TWO GREAT YEARS OF OUR LIVES.

313

00:17:05,419 --> 00:17:07,490

THIS IS A SPECIAL PICTURE.

314

00:17:07,490 --> 00:17:10,579

ONE OF THE GUYS THAT WORKED ON AIRPLANES TOOK
THIS

315

00:17:10,579 --> 00:17:12,780

PICTURE OF ME LANDING ON THE BOAT AND SO I'LL
JUST

316

00:17:12,780 --> 00:17:15,650

DESCRIBE TWO THERE ARE FOUR WIRES ON THE CARRIER.

317

00:17:15,650 --> 00:17:19,429

WE GENERALLY AIM FOR NUMBERS THREE AND I WILL
TELL YOU,

318

00:17:19,429 --> 00:17:21,750

IN THIS PICTURE, I LANDED ON NUMBER THREE.

319

00:17:21,750 --> 00:17:23,770

THIS IS A GOOD LANDING.

320

00:17:23,770 --> 00:17:26,199

YOU SEE THERE'S NO WIRE THERE UNDERNEATH THE
TAIL OF MY

321

00:17:26,199 --> 00:17:28,169

AIRPLANE WHERE THE HOOK WOULD BE BECAUSE WE
LAND ON IT

322

00:17:28,169 --> 00:17:31,559

SO MUCH THEY HAVE TO REPLACE THEM AND SO THEY
HAD TAKEN

323

00:17:31,559 --> 00:17:32,559

OFF.

324

00:17:32,559 --> 00:17:33,559

THAT WAS A PRETTY GOOD LANDING.

325

00:17:33,559 --> 00:17:36,630

SO THIS IS A SPECIAL PICTURE NOT BECAUSE OF
THE

326

00:17:36,630 --> 00:17:39,390

AIRPLANE TOUCHDOWN EVEN THOUGH THAT IS IMPORTING.

327

00:17:39,390 --> 00:17:41,360

IT'S A GOOD PICTURE BECAUSE THIS IS ONE OF
MY LAST

328

00:17:41,360 --> 00:17:44,970

CARRIER ARRESTED LANDINGS AND I LEFT AIR TO
COME HERE

329

00:17:44,970 --> 00:17:48,210

TO DC AND I DIDN'T KNOW THAT I WAS GOING TO
GET THIS

330
00:17:48,210 --> 00:17:49,210
JOB.

331
00:17:49,210 --> 00:17:50,760
THAT'S ACTUALLY ONE OF THE LAST TIMES I WILL
EVER GET

332
00:17:50,760 --> 00:17:51,760
TO DO THAT.

333
00:17:51,760 --> 00:17:53,710
SO VERY SPECIAL PICTURE FOR ME.

334
00:17:53,710 --> 00:17:55,370
SO I MOVED TO WASHINGTON DC.

335
00:17:55,370 --> 00:17:58,230
I DECIDED INSTEAD OF WORKING IN THE PENTAGON,
I WAS

336
00:17:58,230 --> 00:18:00,660
GOING TO DO SOMETHING DIFFERENT AND I GOT
TO WORK IN

337
00:18:00,660 --> 00:18:01,690
THE CAPITAL.

338
00:18:01,690 --> 00:18:02,920
THIS IS ONE OF MY FAVORITE DAYS.

339
00:18:02,920 --> 00:18:05,620
I WAS SITTING AT MY DESK AND EVERY TIME.

340
00:18:05,620 --> 00:18:08,650
I CALLED UP CONGRESSMAN LEWIS'S OFFICE, A
CIVIL RIGHTS

341

00:18:08,650 --> 00:18:09,650
ICON.

342

00:18:09,650 --> 00:18:12,250
THE ONLY LIVING SPEAKER FROM THE MARCH ON
WASHINGTON

343

00:18:12,250 --> 00:18:14,270
FOR JOBS AND FREEDOM.

344

00:18:14,270 --> 00:18:15,270
THAT'S WHERE DR.

345

00:18:15,270 --> 00:18:16,270
MUGLER – DR.

346

00:18:16,270 --> 00:18:19,039
MARTIN LUTHER KING HAD
THE, I HAVE A DREAM SPEECH THAT CHANGE THIS

347

00:18:19,039 --> 00:18:22,250
COUNTRY.

348

00:18:22,250 --> 00:18:28,940
HE WAS A COLLEGE STUDENT AND LEADER OF A MOVEMENT
CALLED THE STUDENT NONVIOLENT COMMITTEE AND

349

00:18:28,940 --> 00:18:30,510
HE GOT TO
SPEAK THAT DAY.

350

00:18:30,510 --> 00:18:32,840
SO I GOT TO GO AND MEET HIM AND PICK HIS BRAIN
AND

351

00:18:32,840 --> 00:18:33,840
ASKING QUESTIONS.

352
00:18:33,840 --> 00:18:35,200
HE TOOK ME ON HIS PATIO AND WE HAD A GREAT
CONVERSATION.

353
00:18:35,200 --> 00:18:37,600
THEN HE DID THE SAME THING FOR MY DAUGHTERS
WHAT A

354
00:18:37,600 --> 00:18:39,850
GREAT EXPERIENCE AND GREAT MAN.

355
00:18:39,850 --> 00:18:40,850
A PIONEER.

356
00:18:40,850 --> 00:18:41,850
NO LESS.

357
00:18:41,850 --> 00:18:42,850
A PIONEER.

358
00:18:42,850 --> 00:18:47,231
I WORK FOR THIS GENTLEMAN AND I SPENT -- IT
WAS A

359
00:18:47,231 --> 00:18:48,919
YEAR-LONG PROGRAM.

360
00:18:48,919 --> 00:18:51,200
CAN YOU ADVANCE THAT FOR?

361
00:18:51,200 --> 00:18:53,120
I'M HAVING TROUBLE.

362
00:18:53,120 --> 00:18:54,809
I WORKED FOR THIS GENTLEMAN.

363
00:18:54,809 --> 00:18:57,320
SENATOR JOHN MCCAIN, A MILITARY VETERAN.

364
00:18:57,320 --> 00:19:01,200
HE WAS APPEALED W AND NOW A SENATOR -- HE
WAS A POW AND

365
00:19:01,200 --> 00:19:03,720
NOW A SENATOR.

366
00:19:03,720 --> 00:19:04,820
THIS WAS A GREAT DAY.

367
00:19:04,820 --> 00:19:07,850
WE FOUND OUT WE GOT SELECTED, A FEW CLASSMATES,
WE GOT

368
00:19:07,850 --> 00:19:11,530
TO GO HUNTING TOOK A PICTURE WITH US AND GOT
TO TALK TO

369
00:19:11,530 --> 00:19:13,820
HIM ABOUT NASA IN THE FUTURE.

370
00:19:13,820 --> 00:19:15,830
BUT HE BROUGHT MY WHOLE CLASS TOGETHER AND
TALKED ABOUT

371
00:19:15,830 --> 00:19:16,830
LEADERSHIP.

372
00:19:16,830 --> 00:19:19,299
I GOT TO ASK HIM TOUGH QUESTIONS AND HE GOT
TO TALK TO

373
00:19:19,299 --> 00:19:23,740
MY ENTIRE CLASS, 17 OF US, ABOUT LEADERSHIP
AND ABOUT

374
00:19:23,740 --> 00:19:25,980
TELLING THE TRUTH EVEN WHEN IT'S TOUGH.

375

00:19:25,980 --> 00:19:28,490

THAT WAS A REALLY INSPIRATIONAL DAY.

376

00:19:28,490 --> 00:19:32,299

AND SO, I WAS DOING THAT WHEN I GOT SELECTED
-- I DO

377

00:19:32,299 --> 00:19:34,991

NOT KNOW IF MY BATTERIES ARE RUNNING OUT OR
WHAT, BUT

378

00:19:34,991 --> 00:19:40,950

.
NEXT SLIDE.

379

00:19:40,950 --> 00:19:44,610

>> I WAS THERE IN DC WHEN I GOT THIS JOB.

380

00:19:44,610 --> 00:19:48,630

AND I THREW THESE PICTURES TOGETHER BECAUSE
I COULD

381

00:19:48,630 --> 00:19:51,380

JUST SIT ON THIS SLIDE FOR THE WHOLE HOUR
BECAUSE THOSE

382

00:19:51,380 --> 00:19:53,910

FOLKS ARE ALL -- I COULD PUT MORE PICTURES
UP.

383

00:19:53,910 --> 00:19:55,429

THERE'S AN AIRMAN IN THERE.

384

00:19:55,429 --> 00:19:58,370

THERE'S ONE OF MY ADVISORS FROM CAL POLY,
MY ACADEMIC

385

00:19:58,370 --> 00:20:01,659

ADVISOR AND OF COURSE MY FAMILY IN THE MIDDLE.

386
00:20:01,659 --> 00:20:04,429
THAT PICTURE WITH MY WIFE AND DAUGHTERS AND
THAT

387
00:20:04,429 --> 00:20:06,270
BEAUTIFUL F-18 IN THE BACKGROUND.

388
00:20:06,270 --> 00:20:09,090
THAT'S LIKE EVERYTHING IMPORTANT TO ME IN
THE WORLD.

389
00:20:09,090 --> 00:20:12,020
[LAUGHTER] NOW BECAUSE OF THE AIRPLANE, BUT
THAT F-18

390
00:20:12,020 --> 00:20:15,080
REPRESENTS A SQUADRON WHICH IS 250 PEOPLE
TO COME

391
00:20:15,080 --> 00:20:18,020
TOGETHER IN ANY CLIMATE, AND ANYPLACE TO DO
THINGS THAT

392
00:20:18,020 --> 00:20:20,409
YOU WILL NEED THEM TO DO AND THAT IS AMAZING
THING TO

393
00:20:20,409 --> 00:20:21,409
BE A PART OF.

394
00:20:21,409 --> 00:20:26,549
ALL OF YOU SERVICEMEMBERS THANK YOU FOR SERVICE
AS

395
00:20:26,549 --> 00:20:29,150
WELL.

396

00:20:29,150 --> 00:20:34,260
[APPLAUSE] SO ALL OF THOSE FOLKS HELP ME TO
MAKE THIS

397
00:20:34,260 --> 00:20:38,780
NEXT PICTURE, THE NEXT SLIDE, A REALITY.

398
00:20:38,780 --> 00:20:41,090
.
NEXT SLIDE.

399
00:20:41,090 --> 00:20:45,520
>> I GOT TO GO FROM CONGRESS TO NASA AND BEGIN
THIS

400
00:20:45,520 --> 00:20:47,110
JOURNEY OF BECOMING AN ASTRONAUT.

401
00:20:47,110 --> 00:20:49,390
NEXT SLIDE.

402
00:20:49,390 --> 00:20:54,320
>> MY CLASS SHOWED UP IN AUGUST 2013 TO BEGIN
ASTRONAUT

403
00:20:54,320 --> 00:20:58,850
BOOT CAMP CANDIDATE TRAINING TO BECOME AN
ASTRONAUT AND

404
00:20:58,850 --> 00:21:00,700
ITS AMAZING TRAINING.

405
00:21:00,700 --> 00:21:04,750
WE SHOWED UP AND WE STARTED RIGHT AWAY INTO
THE FIVE

406
00:21:04,750 --> 00:21:07,870
BASIC COMPETENCIES THAT YOU HAVE TO HAVE IN
ORDER TO BE

407
00:21:07,870 --> 00:21:10,130
AN ASTRONAUT.

408
00:21:10,130 --> 00:21:11,130
IS THAT WORKING?

409
00:21:11,130 --> 00:21:12,820
BECAUSE I'M GOING TO NEED IT.

410
00:21:12,820 --> 00:21:13,820
OKAY.

411
00:21:18,169 --> 00:21:15,220
NEXT SLIDE.

412
00:21:18,169 --> 00:21:20,159
THAT MEANS MY NAME IS VICTOR AND RUSSIAN.

413
00:21:20,159 --> 00:21:23,539
WE HAD TO LEARN TO SPEAK RUSSIAN.

414
00:21:23,539 --> 00:21:25,980
ANYBODY IMAGINE WHY WE HAVE TO SPEAK RUSSIAN
IN THE

415
00:21:25,980 --> 00:21:30,720
ASTRONAUT CORPS?

416
00:21:30,720 --> 00:21:36,140
>> WE DON'T HAVE ROCKETS TO GO --
>> WE DO.

417
00:21:36,140 --> 00:21:38,590
WE RIDE WITH THE RUSSIANS.

418
00:21:38,590 --> 00:21:41,320
AND THAT VEHICLE WAS MADE BY AN AEROSPACE
COMPANY IN

419

00:21:41,320 --> 00:21:42,320

RUSSIA.

420

00:21:42,320 --> 00:21:44,409

SO THE BUTTONS, THEY ARE NOT IN ENGLISH.

421

00:21:44,409 --> 00:21:48,010

WE HAVE TO LEARN TO READ, SPEAK AND HEAR OVER
THE RADIO

422

00:21:48,010 --> 00:21:49,280

AND RUSSIAN.

423

00:21:49,280 --> 00:21:51,720

AND WE HAVE TO LEARN TECHNICAL THINGS AND
RUSSIAN AS

424

00:21:51,720 --> 00:21:52,720

WELL.

425

00:21:52,720 --> 00:21:54,280

THE LANGUAGE TRAINING IS VERY CHALLENGING.

426

00:21:54,280 --> 00:21:56,320

I TRIED TO DO ABOUT SIX HOURS A WEEK.

427

00:21:56,320 --> 00:21:58,030

THAT STRETCHES YOUR BRAIN.

428

00:21:58,030 --> 00:21:59,030

NEXT SLIDE.

429

00:21:59,030 --> 00:22:01,100

WE HAVE TO LEARN INTERNATIONAL SPACE STATION
SYSTEMS

430

00:22:01,100 --> 00:22:04,390

BECAUSE OF THE TOILET BREAKS, WHO DO YOU THINK
US TO

431

00:22:04,390 --> 00:22:06,180
FIX IT?

432

00:22:06,180 --> 00:22:07,180
WHOEVER BROKE IT.

433

00:22:07,180 --> 00:22:08,180
THAT'S RIGHT.

434

00:22:08,180 --> 00:22:11,809
[LAUGHTER] SO, YOU CAN'T CALL A PLUMBER.

435

00:22:11,809 --> 00:22:12,900
WE DON'T HAVE SPACE PLUMBERS.

436

00:22:12,900 --> 00:22:14,620
MAYBE ONE DAY WE WILL.

437

00:22:14,620 --> 00:22:16,840
WE WORK AND LIVE IN SPACE NOW.

438

00:22:16,840 --> 00:22:19,510
ANYBODY HERE 16?

439

00:22:19,510 --> 00:22:24,030
EVERYBODY 16 AND YOUNGER, RAISE YOUR HAND.

440

00:22:24,030 --> 00:22:27,650
EVERYBODY ELSE LOOK AROUND AT THESE HANDS.

441

00:22:27,650 --> 00:22:34,640
HUMANS HAVE WORKED AND LIVED IN SPACE CONTINUOUSLY
LONGER THAN ALL OF THESE FOLKS HAVE BEEN ALIVE.

442

00:22:34,640 --> 00:22:37,659

WE STARTED LIVING ON THE SPACE STATION -- THANK
YOU --

443

00:22:37,659 --> 00:22:40,679
NOVEMBER 2, 2000.

444

00:22:40,679 --> 00:22:44,440
SO NOVEMBER 2 OF LAST YEAR, WE HAD 16 YEARS
CONTINUOUS

445

00:22:44,440 --> 00:22:45,840
AND WE ARE BEYOND 16.

446

00:22:45,840 --> 00:22:49,080
WORKING ON HER 17TH YEAR.

447

00:22:49,080 --> 00:22:50,320
THAT'S A BIG DEAL.

448

00:22:50,320 --> 00:22:53,700
WHETHER IT'S ON CNN OR MSNBC OR NOT, THAT'S
A BIG DEAL.

449

00:22:53,700 --> 00:22:55,470
THANK YOU NASA.

450

00:22:55,470 --> 00:22:57,300
THAT'S WHY YOU HAVE TO LEARN THE SYSTEMS BECAUSE
WHEN

451

00:22:57,300 --> 00:22:59,420
SOMETHING BREAKS YOU HAVE TO FIX IT.

452

00:22:59,420 --> 00:23:02,970
IT ALSO HELPS YOU TO BECOME A CAPITAL COMMUNICATOR.

453

00:23:02,970 --> 00:23:05,130
HOUSTON, I LOST MY TOOTHBRUSH.

454
00:23:05,130 --> 00:23:08,240
YOU'RE TALKING TO A CREWMEMBER OR AN ENGINEER
WAS GOT

455
00:23:08,240 --> 00:23:10,720
THROUGH SYSTEMS CLASSES SO IT'S PROBABLY OVER
THERE BY

456
00:23:10,720 --> 00:23:12,850
THE EVENT BECAUSE EVERYTHING FLOWS AND SUCKS
DOWN TO

457
00:23:12,850 --> 00:23:16,010
THE AIR CONDITIONING VENT.

458
00:23:16,010 --> 00:23:18,280
THAT'S A PICTURE OF MY CLASSMATE, DREW MORGAN,
WHO IS

459
00:23:18,280 --> 00:23:21,789
AN ARMY DOCTOR WHO GRADUATED FROM RANGER SCHOOL.

460
00:23:21,789 --> 00:23:24,039
YOU THINK HE KNOWS ABOUT TELEPHONE REPAIR?

461
00:23:24,039 --> 00:23:27,700
THIS IS US REPAIRING A TELEPHONE ON THE INTERNATIONAL
SPACE STATION.

462
00:23:27,700 --> 00:23:30,070
NO MATTER WHAT YOU DID BEFORE, SCHOOLTEACHER,
ENGINEER,

463
00:23:30,070 --> 00:23:33,230
PILOT, YOU WILL FIND SOMETHING THAT WILL STRETCH
YOUR

464
00:23:33,230 --> 00:23:34,230
BRAIN.

465

00:23:34,230 --> 00:23:36,380

THIS IS WORKING ON ROBOTICS TRAINING.

466

00:23:36,380 --> 00:23:42,040

THEY BUILT -- AND WE HAVE TO LEARN TO DO LOTS
OF

467

00:23:42,040 --> 00:23:43,990

DIFFERENT OPERATIONS FROM PUTTING A CREWMEMBER
ON THE

468

00:23:43,990 --> 00:23:46,340

END OF IT WHEN THEY DO A SPACEWALK, TO GRABBING
CARGO

469

00:23:46,340 --> 00:23:47,340

VEHICLES.

470

00:23:47,340 --> 00:23:50,100

WHEN WE LAUNCH CARGO TO THE SPACE STATION
IT HAS TO

471

00:23:50,100 --> 00:23:51,400

CATCH THE SPACE STATION.

472

00:23:51,400 --> 00:23:54,390

IF I WANT TO SEND THIS SIZE MACHINE UP HERE
OR THE BAG

473

00:23:54,390 --> 00:23:58,200

OF APPLES, IS NOT MOVING.

474

00:23:58,200 --> 00:23:59,940

TECHNICALLY WERE ALL MOVING THROUGH SPACE.

475

00:23:59,940 --> 00:24:02,870

IT'S GOT ZERO VELOCITY RIGHT NOW.

476
00:24:02,870 --> 00:24:05,910
THE SPACE STATION IS GOING -- ANYONE KNOW
HOW FAST?

477
00:24:05,910 --> 00:24:10,560
KIDS, HOW FAST?

478
00:24:10,560 --> 00:24:11,560
>> REALLY FAST.

479
00:24:11,560 --> 00:24:12,560
YEAH.

480
00:24:12,560 --> 00:24:13,560
REALLY FAST.

481
00:24:13,560 --> 00:24:14,690
17,500 MILES AN HOUR.

482
00:24:14,690 --> 00:24:18,450
AND SO THAT APPLE, WE HAVE TO ACCELERATE IT
TO 17,500

483
00:24:18,450 --> 00:24:19,450
MILES AN HOUR.

484
00:24:19,450 --> 00:24:23,840
WE DO IT IN CARGO VEHICLES AND THEY GET UP
CLOSE TO THE

485
00:24:23,840 --> 00:24:27,000
SPACE STATION AND THEN SOME OF THEM WE PUT
ON AUTOPILOT

486
00:24:27,000 --> 00:24:30,600
AND IT COASTS NEXT TO THE SPACE STATION, FLYING
IN

487

00:24:30,600 --> 00:24:31,600
FORMATION.

488
00:24:31,600 --> 00:24:34,150
THEN WE TAKE THAT ROBOTIC ARM AND WE REACH
OUT AND GRAB

489
00:24:34,150 --> 00:24:35,150
IT.

490
00:24:35,150 --> 00:24:37,710
AND THEN WE STICK IT ONTO THE SPACE STATION
AND THEN

491
00:24:37,710 --> 00:24:39,850
THE ASTRONAUTS CAN OPEN IT UP AND GET THE
FOOD,

492
00:24:39,850 --> 00:24:43,460
PICTURES OF THEIR FAMILY, SCIENCE, HARDWARE
AND CLOSE.

493
00:24:43,460 --> 00:24:45,350
THAT'S PRETTY NEAT.

494
00:24:45,350 --> 00:24:48,500
IT'S LIKE FLYING AN AIRPLANE AND USING A COMPUTER
AT

495
00:24:48,500 --> 00:24:51,500
THE SAME TIME.

496
00:24:51,500 --> 00:24:55,140
AND ONE OF MY FAVORITE PARTS OF THE TRAINING,
LEARNING

497
00:24:55,140 --> 00:24:56,420
TO SPACEWALK.

498

00:24:56,420 --> 00:24:57,420
PROOF.

499
00:24:57,420 --> 00:24:59,500
THAT ASTRONAUT PUTS THEIR SPACE PANTS ON ONE
LEG AT A

500
00:24:59,500 --> 00:25:00,720
TIME.

501
00:25:00,720 --> 00:25:03,900
THESE PICTURES I LIKE TO SHOW BECAUSE EVEN
AS A ZOOM IN

502
00:25:03,900 --> 00:25:07,280
HERE ON THE DIFFERENT PHASES OF GETTING SUITED
UP, YOU

503
00:25:07,280 --> 00:25:08,390
SEE I'M NOT ALONE.

504
00:25:08,390 --> 00:25:11,059
AND YOU'RE PROBABLY LOOKING AT THIS ONE THING
HE WILL

505
00:25:11,059 --> 00:25:12,900
HE DOESN'T REALIZE THAT PICTURE OF HIM RIGHT
THERE IS

506
00:25:12,900 --> 00:25:14,179
HIM BY HIMSELF.

507
00:25:14,179 --> 00:25:16,549
IF YOU LOOK IN THE LOWER LEFT AND RIGHT CORNER,
THOSE

508
00:25:16,549 --> 00:25:19,580
TWO SPOTS ARE DIVERSE UNDER THE WATER WAITING
FOR ME TO

509
00:25:19,580 --> 00:25:22,250
GET UNDER THE WATER SO THAT THEY CAN GO TO
WORK.

510
00:25:22,250 --> 00:25:25,120
THEY WEIGH US OUT SO THAT WE DO NOT FLOAT
OR SINK BUT

511
00:25:25,120 --> 00:25:27,350
THEY MAKE IT SO THAT WE DON'T HAVE WRITING
MOMENTS.

512
00:25:27,350 --> 00:25:31,539
IF I WERE TO TWIST ON MY SIDE, IF I NEED TO
GET

513
00:25:31,539 --> 00:25:34,140
UNDERNEATH THERE TO DRILL IN THAT BOLD I CAN
GO LIKE

514
00:25:34,140 --> 00:25:37,260
THIS AND NOW I STAY ON MY SIDE UNDERWATER.

515
00:25:37,260 --> 00:25:38,990
SO WOULD STIMULATE SPACE.

516
00:25:38,990 --> 00:25:41,840
IT'S A -- THIS WAS THE MOST FUN PART OF THE
TRAINING.

517
00:25:41,840 --> 00:25:45,620
I HAD NEVER DONE ANYTHING LIKE THIS.

518
00:25:45,620 --> 00:25:47,299
TONS OF FUN.

519
00:25:47,299 --> 00:25:53,090
WE GET UNDERWATER WE PRACTICE REPAIRING THINGS,
REPLACING COMPUTERS, PUMP MODULES AND OTHER

520
00:25:53,090 --> 00:25:57,350
HARDWARE SO
THAT WE CAN WORK TO KEEP THE SPACE STATION

521
00:25:57,350 --> 00:26:00,980
THAT IS IN
ORBIT, 250 MILES OVERHEAD, RUNNING AND WORKING

522
00:26:00,980 --> 00:26:04,830
SO THAT
WE HAVE THAT LAB IN SPACE.

523
00:26:04,830 --> 00:26:07,640
THIS IS A TIME LAPSE OF ABOUT A 20 TO 30 MINUTE
PERIOD

524
00:26:07,640 --> 00:26:10,220
OF US PUTTING ON THE SUIT, GETTING PRESSURIZED,
PUTTING

525
00:26:10,220 --> 00:26:13,299
THE TOOLS ON AND GETTING INTO THE WATER.

526
00:26:13,299 --> 00:26:16,080
I LIKE THE VIDEO BECAUSE IT SPANS THE POOL
DECK AND YOU

527
00:26:16,080 --> 00:26:18,440
SEE HOW MUCH ACTIVITY JUST FOR THE TWO OF
US.

528
00:26:18,440 --> 00:26:21,330
THIS IS MY CLASSMATE GETTING SUITED UP AND
GETTING IN

529
00:26:21,330 --> 00:26:22,330
THE WATER.

530

00:26:22,330 --> 00:26:24,150
YOU SEE HOW MANY PEOPLE ARE THERE?

531
00:26:24,150 --> 00:26:25,150
DOZENS OF FOLKS.

532
00:26:25,150 --> 00:26:27,980
LIKE SCOTT KELLY SAID, HUMAN SPACEFLIGHT IS
THE

533
00:26:27,980 --> 00:26:32,549
GREATEST TEAM SPORT ON AND OFF THE PLANET.

534
00:26:32,549 --> 00:26:33,900
WE'VE GOT AN AMAZING TEAM.

535
00:26:33,900 --> 00:26:37,059
SO, WHEN YOU FINISH ALL THOSE THINGS -- THE
LAST ONE.

536
00:26:37,059 --> 00:26:38,390
T 38 FLYING.

537
00:26:38,390 --> 00:26:39,720
I'M A PILOT.

538
00:26:39,720 --> 00:26:42,429
NO MATTER WHAT YOU DID BEFORE, YOU CAN BE
A SCIENTIST

539
00:26:42,429 --> 00:26:44,779
OR A SCHOOLTEACHER OR A PILOT, YOU WILL BECOME
A FULLY

540
00:26:44,779 --> 00:26:46,870
QUALIFIED MEMBER OF THE T 38.

541
00:26:46,870 --> 00:26:49,360
THIS IS OUR AFTER BURNING TWIN-ENGINE AIRCRAFT

THAT WE

542

00:26:49,360 --> 00:26:54,210

FLY AND IT TEACHES YOU TO OPERATE IN A PHYSIOLOGICALLY
CHALLENGING ENVIRONMENT.

543

00:26:54,210 --> 00:26:56,659

YOU CAN BE UPSIDE DOWN BUT THE BLOOD IS NOT
GOING TO

544

00:26:56,659 --> 00:26:59,070

RUN TO YOUR HEAD IF I PUT WENDY ON THE AIRPLANE
IN YOUR

545

00:26:59,070 --> 00:27:02,330

EYES ARE UPSIDE DOWN YOUR BODY SAYS I'M AFRAID.

546

00:27:02,330 --> 00:27:04,740

AGAIN CAUSE YOUR SENSES TO BE CONFUSED.

547

00:27:04,740 --> 00:27:06,770

SOUND LIKE ANYTHING YOU HEARD OF?

548

00:27:06,770 --> 00:27:08,150

GOING INTO SPACE, RIGHT?

549

00:27:08,150 --> 00:27:11,360

WE HAVE TO USE CONTROLS BY DOING OTHER THINGS
AND

550

00:27:11,360 --> 00:27:14,230

FOLLOWING A CHECKLIST LIKE THOSE ROBOTIC OPERATIONS
I

551

00:27:14,230 --> 00:27:15,230

WAS TELLING ABOUT.

552

00:27:15,230 --> 00:27:18,390

YOU ALSO HAVE TO TALK TO THE CREMATED WORK

TOGETHER ON

553

00:27:18,390 --> 00:27:19,390

THE SAME THING.

554

00:27:19,390 --> 00:27:21,260

THAT'S LIKE LIVING WITH THE CROWN THE SPACE
STATION.

555

00:27:21,260 --> 00:27:24,590

AND YOU HAVE TO TALK TO PEOPLE THAT ARE FAR
AWAY.

556

00:27:24,590 --> 00:27:26,909

AIR TRAFFIC CONTROL, CONTROL TOWERS.

557

00:27:26,909 --> 00:27:32,179

IT'S LIKE BEING ON THE STATIONS IN HOUSTON,
STATION, I

558

00:27:32,179 --> 00:27:33,179

LOST MY TOOTHBRUSH.

559

00:27:33,179 --> 00:27:36,649

YOU HAVE TO GET USED TO TALKING WITH FOLKS.

560

00:27:36,649 --> 00:27:39,940

EVERYBODY BECOMES A FULLY QUALIFIED MEMBER
AND THAT'S A

561

00:27:39,940 --> 00:27:41,790

GREAT SHOT OF A BUNCH OF US, EIGHT OF US FLYING
IN

562

00:27:41,790 --> 00:27:44,320

FORMATION FOR ONE OF OUR REMEMBRANCE DAYS.

563

00:27:44,320 --> 00:27:46,649

WE FLY OVER THE TREE GROVE WHERE WE PLANT

TREES FOR

564

00:27:46,649 --> 00:27:49,860

ASTRONAUTS THAT HAVE PASSED ON.

565

00:27:49,860 --> 00:27:51,870

THIS WAS A SPECIAL DAY.

566

00:27:51,870 --> 00:27:53,620

WE DO THAT EVERY YEAR.

567

00:27:53,620 --> 00:27:56,580

AND ONCE YOU GET DONE WITH THAT, YOU BECOME
AN

568

00:27:56,580 --> 00:27:57,580

ASTRONAUT.

569

00:27:57,580 --> 00:28:00,420

A MEMBER OF THIS GREAT TEAM OF EXPLORERS.

570

00:28:00,420 --> 00:28:03,899

I LIKE TO SAY WE ARE AMBASSADORS OF THE NASA
VISION TO

571

00:28:03,899 --> 00:28:06,440

REACH FOR NEW HEIGHTS AND REVEAL THE UNKNOWN
FOR ALL

572

00:28:06,440 --> 00:28:08,450

HUMANKIND.

573

00:28:08,450 --> 00:28:09,450

THOSE ARE GREAT WORDS.

574

00:28:09,450 --> 00:28:11,299

A LOT OF THOSE WORDS.

575

00:28:11,299 --> 00:28:14,630
DOES ANYONE RECOGNIZE THIS PICTURE?

576
00:28:14,630 --> 00:28:16,240
THAT IS AN ACTUAL PHOTOGRAPH.

577
00:28:16,240 --> 00:28:18,970
SHOUT IT OUT IF YOU THINK YOU KNOW IT'S IN
THIS

578
00:28:18,970 --> 00:28:21,789
PHOTOGRAPH.

579
00:28:21,789 --> 00:28:23,310
>> THERE IS A MOON IN THAT.

580
00:28:23,310 --> 00:28:25,200
THAT MOON HAS A NAME.

581
00:28:25,200 --> 00:28:29,860
IT WAS POPULAR TO SUMMERS AGO ANYONE REMEMBER
THE NEW

582
00:28:29,860 --> 00:28:31,010
HORIZONS MISSION?

583
00:28:31,010 --> 00:28:32,010
OKAY.

584
00:28:32,010 --> 00:28:33,010
SO ANOTHER ONE.

585
00:28:33,010 --> 00:28:38,860
EVERYBODY WHO IS 10 YEARS OLD RAISE YOUR HAND.
10 YEARS OLD OR YOUNGER, RAISE YOUR HAND.

586
00:28:38,860 --> 00:28:43,940
WE LAUNCHED IN A SPACECRAFT INTO SPACE.

587

00:28:43,940 --> 00:28:49,529

IT WAS GOING REALLY FAST, 25, 30,000 MILES
PER HOUR.

588

00:28:49,529 --> 00:28:53,230

AND IT FLEW YOUR WHOLE LIFE.

589

00:28:53,230 --> 00:28:57,450

IT WAS DOING THAT SPEED FOR NINE YEARS.

590

00:28:57,450 --> 00:28:58,860

TO GET HERE.

591

00:28:58,860 --> 00:29:00,399

TO TAKE THAT PICTURE.

592

00:29:00,399 --> 00:29:03,059

THE FIRST HIGH RESOLUTION IMAGES OF PLUTO.

593

00:29:03,059 --> 00:29:04,640

THAT'S PLUTO AND ITS MOON, KAREN.

594

00:29:04,640 --> 00:29:08,289

THEY WERE TAKEN BY THE NEW HORIZONS SPACECRAFT.

595

00:29:08,289 --> 00:29:11,530

THE REASON I TELL YOU THAT, THIS PICTURE,
THE FIRST UP

596

00:29:11,530 --> 00:29:16,309

CLOSE IMAGES OF PLUTO WERE TAKEN ON THE SAME
DAY THAT

597

00:29:16,309 --> 00:29:18,940

MY CLASSMATES AND I GRADUATED FROM ASTRONAUT
CANDIDATE

598

00:29:18,940 --> 00:29:19,940

TRAINING.

599

00:29:19,940 --> 00:29:21,020

THAT'S A SPECIAL PICTURE FOR ME.

600

00:29:21,020 --> 00:29:22,130

AND SO IS THIS.

601

00:29:22,130 --> 00:29:25,860

THAT'S MY CLASS, THE 2013 ASTRONAUT CLASS.

602

00:29:25,860 --> 00:29:28,900

YOU NOTICE NASA DID SOMETHING FOR THE FIRST
TIME WHEN

603

00:29:28,900 --> 00:29:30,440

THEY PICKED OUR CLASS.

604

00:29:30,440 --> 00:29:36,029

THERE ARE FOUR MEN THAT PICTURE AND FOR WOMEN.

605

00:29:36,029 --> 00:29:38,390

FIRST TIME IN HISTORY THEY HAVE DONE THAT.

606

00:29:38,390 --> 00:29:39,390

THAT IS WORTH APPLAUDING FOR.

607

00:29:39,390 --> 00:29:41,100

I THINK THAT WAS AWESOME.

608

00:29:41,100 --> 00:29:44,899

[APPLAUSE]

>> I HAVE FOUR DAUGHTERS, BY THE WAY.

609

00:29:44,899 --> 00:29:45,899

OKAY.

610

00:29:45,899 --> 00:29:46,899

[LAUGHTER].

611

00:29:46,899 --> 00:29:48,549

I DO THINK THAT IS AWESOME.

612

00:29:48,549 --> 00:29:52,350

SO WE SHOWED UP AND FINISHED TRAINING AND
THAT'S ALL OF

613

00:29:52,350 --> 00:29:54,270

US GRADUATING, ALL SMILES.

614

00:29:54,270 --> 00:29:55,270

GOOD TIMES.

615

00:29:55,270 --> 00:29:59,290

WE BECAME A MEMBER OF THIS GREAT GROUP OF
EXPLORERS.

616

00:29:59,290 --> 00:32:25,390

>>> I LOVE MY JOB.

617

00:32:25,390 --> 00:32:27,809

WHO'S READY TO GO?

618

00:32:27,809 --> 00:32:33,330

[LAUGHTER] [APPLAUSE] I LOVE THAT VIDEO.

619

00:32:33,330 --> 00:32:36,140

ANYBODY RECOGNIZE THE VOICE AND THAT VIDEO?

620

00:32:36,140 --> 00:32:37,950

WHO WAS IT?

621

00:32:37,950 --> 00:32:38,970

>> WOW!

622

00:32:38,970 --> 00:32:39,990

OKAY.

623
00:32:39,990 --> 00:32:44,940
WHAT VOICE DOES PETER -- IT IS PETER COLLINS
VOICE.

624
00:32:44,940 --> 00:32:45,940
WOW.

625
00:32:45,940 --> 00:32:46,940
WE NEED TO TALK.

626
00:32:46,940 --> 00:32:51,519
I HOPE YOU WANT TO BE AN ASTRONAUT, TOO.

627
00:32:51,519 --> 00:32:52,519
YES.

628
00:32:52,519 --> 00:32:53,519
VERY SPECIAL.

629
00:32:53,519 --> 00:32:57,260
WE BECAME A PART OF THE ASTRONAUT CORPS AND
I'M LIVING

630
00:32:57,260 --> 00:32:58,460
THIS DREAM JOB.

631
00:32:58,460 --> 00:33:01,720
IT'S AN AMAZING AND HUMBLING AND CHALLENGING
AND

632
00:33:01,720 --> 00:33:04,630
EXCITING -- AND DID I SAY HUMBLING AND CHALLENGING
AND

633
00:33:04,630 --> 00:33:07,070
EXCITING?

634
00:33:07,070 --> 00:33:09,529
THOSE ARE STORIES THAT I THOUGHT MIGHT MEAN
SOME THINGS

635
00:33:13,760 --> 00:33:10,529
TO YOU.

636
00:33:13,760 --> 00:33:16,830
IT WAS ABOUT CONNECTING WITH SOMETHING AND
I TOLD YOU

637
00:33:16,830 --> 00:33:19,750
EARLIER SOME THINGS THAT YOU COULD BE NOW
AND FOREVER

638
00:33:19,750 --> 00:33:21,330
AND THAT YOU SHOULD TRY TO BE.

639
00:33:21,330 --> 00:33:22,460
ANYBODY REMEMBER THOSE?

640
00:33:22,460 --> 00:33:25,080
WHAT WAS THE FIRST ONE?

641
00:33:25,080 --> 00:33:28,159
BE GRITTY.

642
00:33:28,159 --> 00:33:31,970
NUMBER TWO BE A LIFELONG LEARNER.

643
00:33:31,970 --> 00:33:32,970
I LOVE IT!

644
00:33:32,970 --> 00:33:34,090
I WISH I COULD GET MY KIDS TO DO IT.

645
00:33:34,090 --> 00:33:36,679
WHAT WAS NUMBER THREE?

646

00:33:36,679 --> 00:33:37,679

>> BE A GOOD PERSON.

647

00:33:37,679 --> 00:33:41,679

SO, I WANT TO GIVE YOU A COUPLE LITTLE SPECIFIC THINGS

648

00:33:41,679 --> 00:33:43,400

THAT I THINK ARE IMPORTANT ABOUT THOSE FOLKS.

649

00:33:43,400 --> 00:33:44,400

BEING GRITTY.

650

00:33:44,400 --> 00:33:45,400

WHAT IS THAT MEAN?

651

00:33:45,400 --> 00:33:46,400

IT MEANS WORK HARD.

652

00:33:46,400 --> 00:33:48,220

YOUR PARENTS TELL YOU THAT.

653

00:33:48,220 --> 00:33:51,080

I'M TELLING YOU AGAIN, WORK HARD.

654

00:33:51,080 --> 00:33:53,340

NOT JUST AT THE THINGS YOU LIKE, ESPECIALLY THE THINGS

655

00:33:53,340 --> 00:33:55,080

YOU DON'T LIKE.

656

00:33:55,080 --> 00:33:59,730

THE GREATEST OBSTACLES I'VE ENCOUNTERED IN MY LIFE WERE

657

00:33:59,730 --> 00:34:01,679

WHEN I DIDN'T BELIEVE IN MYSELF.

658

00:34:01,679 --> 00:34:03,710

I HAD EXTERNAL OBSTACLES.

659

00:34:03,710 --> 00:34:05,679

BUT THOSE HAVEN'T BEEN AS TOUGH AS I HAVE
BEEN ON

660

00:34:05,679 --> 00:34:07,179

MYSELF.

661

00:34:07,179 --> 00:34:08,830

AND IF YOU RECOGNIZE THAT IT MAKES YOU LOOK
AT THE

662

00:34:08,830 --> 00:34:10,840

OBSTACLES IN A DIFFERENT WAY.

663

00:34:10,840 --> 00:34:13,450

YOU CAN DO ANYTHING IF YOU PUT YOUR MIND TO
IT.

664

00:34:13,450 --> 00:34:14,450

I LOVE THIS THING.

665

00:34:14,450 --> 00:34:16,330

SOMEONE SAID TO ME ONCE.

666

00:34:16,330 --> 00:34:18,430

GET COMFORTABLE BEING UNCOMFORTABLE.

667

00:34:18,430 --> 00:34:20,820

DO ANY OF YOU GET NERVOUS IF YOU HAVE TO MAKE
A SPEECH

668

00:34:20,820 --> 00:34:22,609

IN FRONT OF PEOPLE?

669

00:34:22,609 --> 00:34:24,010

HANDS UP.

670

00:34:24,010 --> 00:34:25,669

BECAUSE THERE'S KIDS AND MAYBE FEEL THAT WAY
AND

671

00:34:25,669 --> 00:34:27,710

GROWN-UPS ADMITTING IT WILL HELP THEM REALIZE
IT'S

672

00:34:27,710 --> 00:34:28,960

OKAY.

673

00:34:28,960 --> 00:34:31,990

MY HAND IS UP NOT TO ENCOURAGE YOU, BUT BECAUSE
I GET

674

00:34:31,990 --> 00:34:33,169

NERVOUS AS WELL.

675

00:34:33,169 --> 00:34:34,510

BUT YOU KNOW WHAT I PRACTICE.

676

00:34:34,510 --> 00:34:37,839

I PRACTICE AND IF YOU PRACTICE, GET YOUR LITTLE
BROTHER

677

00:34:37,839 --> 00:34:40,429

OR SISTER, MAKE A SPEECH.

678

00:34:40,429 --> 00:34:41,609

GET MOMMY AND DADDY TOGETHER.

679

00:34:41,609 --> 00:34:43,200

GIVE THEM THE SPEECH.

680

00:34:43,200 --> 00:34:46,560

TELL YOUR TEACHER BEFORE I DO THAT CAN I SHOW YOU?

681
00:34:46,560 --> 00:34:48,919
GIVE THEM THE SPEECH AND BY THE TIME YOU'VE DONE IT

682
00:34:48,919 --> 00:34:49,919
ENOUGH, YOU GET COMFORTABLE.

683
00:34:49,919 --> 00:34:52,149
YOU KNOW YOUR STUFF.

684
00:34:52,149 --> 00:34:53,440
THOSE BUTTERFLIES ARE GOING TO CREEP UP.

685
00:34:53,440 --> 00:34:55,500
BUT YOU KNOW WHAT?

686
00:34:55,500 --> 00:34:58,170
WHEN YOU FOCUS ON SOMETHING AND YOU TRAIN, YOU GET

687
00:34:58,170 --> 00:34:59,480
BETTER.

688
00:34:59,480 --> 00:35:01,560
WHAT YOU PUT YOUR ENERGY INTO, YOU GET BETTER AT IT.

689
00:35:01,560 --> 00:35:04,230
YOU WILL GET OFF IN FRONT OF THE CLASS AND THOSE

690
00:35:04,230 --> 00:35:07,550
BUTTERFLIES WILL FUEL YOU WILL TO FLY AND YOU'LL BE

691
00:35:07,550 --> 00:35:10,320

GOOD AT MAKING SPEECHES, EVEN IF IT STILL
MAKES YOU

692

00:35:10,320 --> 00:35:11,320

NERVOUS.

693

00:35:11,320 --> 00:35:13,599

IF YOU CAN SIT CLOSE MY HAND IS SHAKING.

694

00:35:13,599 --> 00:35:14,839

BUT IT DOESN'T BOTHER ME.

695

00:35:14,839 --> 00:35:17,230

IF YOU SEE IN A MOVIE OR READ THE BOOK THE
RIGHT STUFF

696

00:35:17,230 --> 00:35:18,530

THAT'S WHAT IT'S ABOUT.

697

00:35:18,530 --> 00:35:21,510

BEING ABLE TO WORK THROUGH CHALLENGES.

698

00:35:21,510 --> 00:35:23,500

SO GO AFTER THOSE THINGS THAT MAKE YOU NERVOUS.

699

00:35:23,500 --> 00:35:25,900

THAT'S WHAT BEING GRITTY IS ABOUT.

700

00:35:25,900 --> 00:35:29,250

BEING A LIFELONG LEARNER.

701

00:35:29,250 --> 00:35:30,250

NEXT SLIDE.

702

00:35:30,250 --> 00:35:32,750

THIS THING DOESN'T LIKE ME.

703

00:35:32,750 --> 00:35:36,599

[LAUGHTER] FIRST AND FOREMOST, YOU HEARD ME
TELL

704

00:35:36,599 --> 00:35:40,350

STORIES ABOUT FOLKS WHO HELPED ME FIND CONFIDENCE,
FIND

705

00:35:40,350 --> 00:35:43,300

A PATH AND FIND A MAJOR.

706

00:35:43,300 --> 00:35:45,950

I'M NOT GOING TO TELL YOU I LISTENED ALL THE
TIME, BUT

707

00:35:45,950 --> 00:35:48,800

I LISTENED AND I'M SO GRATEFUL THAT I DID.

708

00:35:48,800 --> 00:35:51,250

I LOOK BACK AND SAID I SHOULD HAVE LISTENED
TO A WHOLE

709

00:35:51,250 --> 00:35:52,250

LOT MORE.

710

00:35:52,250 --> 00:35:53,440

WOULD'VE SAVED MYSELF HEADACHES.

711

00:35:53,440 --> 00:35:54,440

LISTEN.

712

00:35:54,440 --> 00:35:55,440

YOU'VE GOT PARENTS.

713

00:35:55,440 --> 00:35:56,530

THEY BROUGHT YOU HERE.

714

00:35:56,530 --> 00:35:59,480

YOU'VE GOT TEACHERS AND GUIDANCE COUNSELORS,
MINISTERS,

715
00:35:59,480 --> 00:36:03,790
PASTORS, BOY SCOUT LEADERS, TEEN COACHES THAT
ARE ALL

716
00:36:03,790 --> 00:36:05,490
CONCERNED ABOUT YOU.

717
00:36:05,490 --> 00:36:07,250
IN YOUR DEVELOPMENT.

718
00:36:07,250 --> 00:36:08,750
LISTEN.

719
00:36:08,750 --> 00:36:10,530
NEXT SLIDE.

720
00:36:10,530 --> 00:36:12,650
ADVANCED ONE, PLEASE.

721
00:36:12,650 --> 00:36:14,960
ANOTHER THING YOU CAN DO TO BE A LIFELONG
LEARNER IS TO

722
00:36:14,960 --> 00:36:16,839
LEARN A FOREIGN LANGUAGE.

723
00:36:16,839 --> 00:36:19,930
YES, RUSSIAN, CHINESE, LEARN TO SPEAK SPANISH
OR

724
00:36:19,930 --> 00:36:21,609
FRENCH.

725
00:36:21,609 --> 00:36:27,150
BUT ALSO, LEARNING THE COMPUTER PROGRAM INTO
THAT AS

726

00:36:27,150 --> 00:36:28,150

WELL.

727

00:36:28,150 --> 00:36:29,990

HOW MANY OF YOUR WALKING AROUND RIGHT NOW
WITH A

728

00:36:29,990 --> 00:36:33,310

SMARTWATCH OR AN ELECTRONIC PHONE IN YOUR
POCKET OR A

729

00:36:33,310 --> 00:36:35,970

GAMING DEVICE?

730

00:36:35,970 --> 00:36:38,589

YOU WANT TO KNOW HOW THE INSIDE OF THAT THING
WORKS AND

731

00:36:38,589 --> 00:36:40,630

YOU KNOW WHAT THOSE MACHINES ACTUALLY SPEAK?

732

00:36:40,630 --> 00:36:41,970

IT'S MOUTH.

733

00:36:41,970 --> 00:36:44,690

COMPUTER PROGRAMMING IS A SPECIFIC KIND OF
MOUTH.

734

00:36:44,690 --> 00:36:46,830

I ENCOURAGE YOU, IF YOU ARE GOOD AT MATH AND
IF YOU'RE

735

00:36:46,830 --> 00:36:48,600

DOING THAT KIND OF MOUTH WHEN THERE'S NOT
A LOT OF

736

00:36:48,600 --> 00:36:53,420

NUMBERS AND WHOLE LOTTA WORDS, YOU ARE FLUENT
IN A

737

00:36:53,420 --> 00:36:55,829

FOREIGN LANGUAGE.

738

00:36:55,829 --> 00:36:57,110

OR ANOTHER LANGUAGE.

739

00:36:57,110 --> 00:36:59,670

ADVANCED ONE, PLEASE.

740

00:36:59,670 --> 00:37:01,329

FOR THOSE OF YOU THAT ARE STILL IN FORMAL
SCHOOLING --

741

00:37:01,329 --> 00:37:04,290

BEING A LIFELONG LEARNER IS CONNECTING FORMAL
AND

742

00:37:04,290 --> 00:37:05,290

INFORMAL SCHOOLING.

743

00:37:05,290 --> 00:37:09,020

WHAT YOU LEARN IN THE REAL WORLD AND CLASSROOM,
THEY

744

00:37:09,020 --> 00:37:10,580

CALL IT EXPERIENCE.

745

00:37:10,580 --> 00:37:12,200

WHEN YOU HAVE A LOT OF EXPERIENCE THEY CALL
THAT

746

00:37:12,200 --> 00:37:13,200

WISDOM.

747

00:37:13,200 --> 00:37:15,070

WHO DOESN'T WANT THAT?

748

00:37:15,070 --> 00:37:18,160

ONE OF THE KEYS TO SUCCEEDING IN A FORMAL
SETTING IS

749

00:37:18,160 --> 00:37:19,160

REVIEW.

750

00:37:19,160 --> 00:37:20,940

IF YOU ARE IN THE GRADES WHERE YOU HAVE ONE
CLASS ALL

751

00:37:20,940 --> 00:37:23,820

DAY, IF YOU TAKE 5 TO 10 MINUTES TO REVIEW
THAT STUFF,

752

00:37:23,820 --> 00:37:26,110

IF YOU HAVE SOMETHING HARD YOU WILL BE GOOD
AT IT.

753

00:37:26,110 --> 00:37:28,099

YOU WILL BE ONE OF THE BEST PEOPLE AT IT.

754

00:37:28,099 --> 00:37:31,450

IF YOU HAVE HIGH SCHOOL SEVEN CLASSES, 5 TO
10 MINUTES

755

00:37:31,450 --> 00:37:36,800

PER CLASS WOULD BE 35 TO AN HOUR AND 10 MINUTES
AND IF

756

00:37:36,800 --> 00:37:39,210

YOU PUT THAT TIME IN, YOU CAN BRING YOUR GRADES
FROM

757

00:37:39,210 --> 00:37:42,540

AVERAGE TO EXCELLING.

758

00:37:42,540 --> 00:37:44,590

AND HERE'S SOME SPECIFICS ON WHAT I WOULD
DO.

759
00:37:44,590 --> 00:37:47,070
YOU TAKE YOUR NOTES THAT YOU WROTE IT MAY
BE RIGHT LIKE

760
00:37:47,070 --> 00:37:48,250
ME CHICKEN SCRATCH.

761
00:37:48,250 --> 00:37:50,940
I CAN ALWAYS READ WHAT I WROTE SO YOU THINK
I'M GONNA

762
00:37:50,940 --> 00:37:53,369
REMEMBER IT A WEEK FROM NOW OR AT THE END
OF THE

763
00:37:53,369 --> 00:37:54,369
SEMESTER?

764
00:37:54,369 --> 00:37:55,369
NO.

765
00:37:55,369 --> 00:37:56,421
THAT DAY I NEED TO GO THROUGH TO MAKE SURE
THAT I CAN

766
00:37:56,421 --> 00:37:57,421
READ IT ALL.

767
00:37:57,421 --> 00:38:02,200
WHAT I CAN'T READ, REWRITE IT.

768
00:38:02,200 --> 00:38:04,070
AND THEN WHILE YOU'RE REWRITING YOU ARE REVIEWING
IT.

769
00:38:04,070 --> 00:38:06,480
YOU'RE RUNNING IT BACK TO YOUR MIND AND YOU
GET TO THAT

770
00:38:06,480 --> 00:38:09,900
PART, I DON'T REMEMBER WHAT PRELIMINARY CHAIN
REACTION

771
00:38:09,900 --> 00:38:10,900
MEANS.

772
00:38:10,900 --> 00:38:12,770
CIRCLE THAT.

773
00:38:12,770 --> 00:38:15,640
AND THEN YOU GO TO CLASS EARLY AND YOU TELL
THE

774
00:38:15,640 --> 00:38:18,260
PROFESSOR, THE TEACHER, I DON'T REMEMBER WHAT
THE

775
00:38:18,260 --> 00:38:20,300
PRELIMINARY CHAIN REACTION IS.

776
00:38:20,300 --> 00:38:23,910
WHEN THEY EXPLAINED TO HOW IMPORTANT THAT
IS, NOW IT'S

777
00:38:23,910 --> 00:38:25,160
STUCK IN THAT BRAIN.

778
00:38:25,160 --> 00:38:26,920
YOU JUST DID TWO THINGS.

779
00:38:26,920 --> 00:38:28,290
YOU DID TWO THINGS.

780
00:38:28,290 --> 00:38:31,760
ONE, YOU FILLED IN THAT GAP OF INFORMATION
BECAUSE THE

781

00:38:31,760 --> 00:38:33,550
TEACHER IS GOING TO MOVE ON TO THE NEXT SUBJECT
THAT

782
00:38:33,550 --> 00:38:35,210
BUILDS ON THAT.

783
00:38:35,210 --> 00:38:37,670
YOU DID SOMETHING ELSE THAT IS EQUAL, IF NOT
MORE

784
00:38:37,670 --> 00:38:39,530
IMPORTANT.

785
00:38:39,530 --> 00:38:41,960
YOU SHOWED THAT TEACHER THAT YOU CARE.

786
00:38:41,960 --> 00:38:44,420
THOSE EDUCATORS IN THE ROOM, RAISE YOUR HANDS
UP AGAIN.

787
00:38:44,420 --> 00:38:48,079
WHEN THE KIDS COME TO FOR QUESTIONS OUTSIDE
OF CLASS,

788
00:38:48,079 --> 00:38:50,700
DO YOU REMEMBER THOSE KIDS?

789
00:38:50,700 --> 00:38:53,099
YOU GENERALLY SAY THINGS LIKE BOY, THAT BILLY
IS SMART.

790
00:38:53,099 --> 00:38:54,550
BOY, SUSIE IS SMART.

791
00:38:54,550 --> 00:39:00,740
BOY, JORDAN IS SMART.

792
00:39:00,740 --> 00:39:02,510

[LAUGHTER] SO, IT'S TWO IMPORTANT THINGS THAT YOU ARE

793

00:39:02,510 --> 00:39:03,510
GETTING DONE.

794

00:39:03,510 --> 00:39:04,760
NEXT SLIDE.

795

00:39:04,760 --> 00:39:06,560
BE A GOOD PERSON.

796

00:39:06,560 --> 00:39:09,390
IT'S WEIRD TO GO -- I'M NOT THE JUDGE OF WHAT IT MEANS

797

00:39:09,390 --> 00:39:11,349
TO BE A GOOD PERSON, THAT I CAN TELL YOU SOME THINGS.

798

00:39:11,349 --> 00:39:15,000
IF YOU ASK YOURSELF WHAT WOULD MY MAMA THINK OF THIS?

799

00:39:15,000 --> 00:39:16,730
WHAT WOULD MY GRANDMA THINK OF THESE DECISIONS?

800

00:39:16,730 --> 00:39:19,650
YOU WILL PROBABLY MAKE BETTER DECISIONS.

801

00:39:19,650 --> 00:39:21,900
IF I WAS TELLING YOU NOT TO LISTEN TO YOUR PARENTS AND

802

00:39:21,900 --> 00:39:25,960
TO NOT WORK OUT AND SIT ON YOUR BUTT AND PLAY VIDEO

803

00:39:25,960 --> 00:39:29,490

GAMES INSTEAD OF MAKING THE VIDEO GAMES, MY
GRANDMOTHER

804

00:39:29,490 --> 00:39:31,330

WOULD NOT BE HAPPY WITH THAT.

805

00:39:31,330 --> 00:39:33,070

AND IT'S ON TV SO SHE WOULD KNOW.

806

00:39:33,070 --> 00:39:34,840

I WOULD GET A PHONE CALL.

807

00:39:34,840 --> 00:39:37,670

[LAUGHTER] WHAT WOULD YOUR GRANDMOTHER THINK?

808

00:39:37,670 --> 00:39:39,320

THAT'S A GREAT QUESTION TO ASK YOURSELF.

809

00:39:39,320 --> 00:39:40,320

NEXT SLIDE.

810

00:39:40,320 --> 00:39:42,770

ADVANCED ONE, PLEASE.

811

00:39:42,770 --> 00:39:45,020

IT'S ABOUT MAKING HEALTHY, RATIONAL CHOICES.

812

00:39:45,020 --> 00:39:48,720

IT'S ABOUT PUTTING GOOD THINGS IN YOUR BODY
AND ABOUT

813

00:39:48,720 --> 00:39:51,040

GOOD THINGS COMING OUT OF YOUR BODY.

814

00:39:51,040 --> 00:39:53,730

IT'S ABOUT GETTING A GOOD NIGHTS SLEEP.

815

00:39:53,730 --> 00:39:57,950

IT'S ABOUT LEARNING, ADVANCING AND NOT BEING
TOO BIG

816

00:39:57,950 --> 00:40:00,400
HEADED TO GROW AND TO LEARN.

817

00:40:00,400 --> 00:40:02,740
HEALTHY, RATIONAL CHOICES.

818

00:40:02,740 --> 00:40:04,770
NEXT SLIDE.

819

00:40:04,770 --> 00:40:07,099
IT'S ABOUT PRACTICING ETIQUETTE.

820

00:40:07,099 --> 00:40:09,859
I TELL MY KIDS, AT A KID IS RESPECTING THE
PEOPLE

821

00:40:09,859 --> 00:40:10,859
AROUND YOU.

822

00:40:10,859 --> 00:40:12,369
IT'S A BUNCH OF THINGS I WANT YOU TO LEARN
AND

823

00:40:12,369 --> 00:40:14,560
UNDERSTAND IS NOT JUST PUTTING THE KNIVES
AND FORKS AND

824

00:40:14,560 --> 00:40:15,750
THE COPS IN THE RIGHT PLACE.

825

00:40:15,750 --> 00:40:18,660
BREAD, MEAT, WATER, WHICH ONE IS MINE?

826

00:40:18,660 --> 00:40:21,020
IT'S ABOUT UNDERSTANDING THAT THE PEOPLE SITTING
NEXT

827
00:40:21,020 --> 00:40:23,800
TO YOU, MAYBE THEY'LL HAVE A CONVERSATION
OR THEY'LL DO

828
00:40:23,800 --> 00:40:27,190
SOMETHING THAT YOU NEED TO BE RESPECTIVE.

829
00:40:27,190 --> 00:40:29,319
PRACTICING ETIQUETTE, WHAT YOU PUT YOUR ENERGY
INTO,

830
00:40:29,319 --> 00:40:32,240
YOU GET GOOD AT.

831
00:40:32,240 --> 00:40:34,750
WORKING HERE ON THE HILL, WORKING IN CONGRESS,
I SAW

832
00:40:34,750 --> 00:40:38,990
HOW IMPORTANT THINGS LIKE HANDWRITTEN NOTES
FOR.

833
00:40:38,990 --> 00:40:41,190
THINGS THAT WE DON'T KID ABOUT.

834
00:40:41,190 --> 00:40:42,980
LEAVE A MESSAGE.

835
00:40:42,980 --> 00:40:44,170
ELECTRONIC MAIL.

836
00:40:44,170 --> 00:40:46,630
BUT A HANDWRITTEN NOTE STANDS OUT.

837
00:40:46,630 --> 00:40:49,260
I KNOW PEOPLE WHO GOT JOBS BECAUSE THEY WROTE
A

838
00:40:49,260 --> 00:40:53,280
HANDWRITTEN THANK YOU NOTE TO THE PERSON THAT
INTERVIEWED THEM.

839
00:40:53,280 --> 00:40:54,380
ETIQUETTE AND TEAMWORK.

840
00:40:54,380 --> 00:40:58,280
BOY, HOW MANY TIMES -- HUMAN SPACEFLIGHT IS
THE

841
00:40:58,280 --> 00:41:01,020
GREATEST TEAM SPORT ON AND OFF THE PLANET
AND WE SPENT

842
00:41:01,020 --> 00:41:03,540
A LOT OF TIME TRYING HARD TO TAKE CARE OF
OURSELVES AND

843
00:41:03,540 --> 00:41:06,670
EACH OTHER SO THAT WE CAN ACCOMPLISH A MISSION.

844
00:41:06,670 --> 00:41:07,910
YOU HAVE TO PRACTICE THAT.

845
00:41:07,910 --> 00:41:10,790
IT'S NOT SOMETHING YOU SHOW UP AND BE GOOD
ON DYLAN.

846
00:41:10,790 --> 00:41:12,490
NEXT SLIDE IN THE LAST ONE.

847
00:41:12,490 --> 00:41:16,000
TO ALL THE SERVICEMEMBERS, FIRST RESPONDERS
AND PARENTS

848
00:41:16,000 --> 00:41:17,470
YOU DO THIS EVERY DAY.

849
00:41:17,470 --> 00:41:20,329
YOU SERVE SOMETHING BIGGER THAN YOURSELF AND
FOR YOU

850
00:41:20,329 --> 00:41:22,730
YOUNG FOLKS, LOOK FOR THAT THING.

851
00:41:22,730 --> 00:41:25,180
I'M NOT GOING TO SAY ALL YOUR PASSIONS.

852
00:41:25,180 --> 00:41:28,790
I'M GOING TO TELL YOU FIND A WAY TO SERVE
AND WHEN YOU

853
00:41:28,790 --> 00:41:31,170
PUT YOUR ENERGY INTO DOING SOMETHING ELSE,
YOU ARE

854
00:41:31,170 --> 00:41:34,250
GOING TO GROW A PASSION THAT YOU WILL KEEP
FOR THE REST

855
00:41:34,250 --> 00:41:35,250
YOUR LIFE.

856
00:41:35,250 --> 00:41:36,250
THANK YOU FOR YOUR TIME.

857
00:41:36,250 --> 00:41:40,720
THANK YOU FOR COMING.

858
00:41:40,720 --> 00:41:45,970
[APPLAUSE] ONE MORE SLIDE.

859
00:41:45,970 --> 00:41:47,530
ONE MORE SLIDE.

860
00:41:47,530 --> 00:41:51,520

SOME WEBSITES THAT YOU CAN GO TO AND GET MORE
INFORMATION ABOUT THE MISSIONS, THE SIGNS

861

00:41:51,520 --> 00:41:54,410

IN THE SPACE

STATION AND SEE WHAT WE DO.

862

00:41:54,410 --> 00:41:57,620

NOW, WHILE THAT'S IT'S UP THERE IF YOU HAVE
QUESTIONS

863

00:41:57,620 --> 00:41:59,680

FOR ME THERE IS A MICROPHONE HERE.

864

00:41:59,680 --> 00:42:01,040

YOU HAVE TO STAND IN THE SPOTLIGHT.

865

00:42:01,040 --> 00:42:02,730

BUT PLEASE, ASK QUESTIONS.

866

00:42:02,730 --> 00:42:04,790

I WOULD LOVE TO TAKE SOME YOUR QUESTIONS.

867

00:42:04,790 --> 00:42:07,540

I'M GOING TO ASK YOU QUESTIONS.

868

00:42:07,540 --> 00:42:09,810

THERE IS A QUIZ IF YOU DON'T ASK ME QUESTIONS.

869

00:42:09,810 --> 00:42:14,820

[LAUGHTER] COME ON UP TO THE MICROPHONE.

870

00:42:14,820 --> 00:42:16,180

>> THANKS.

871

00:42:16,180 --> 00:42:24,480

I WANT TO THANK YOU SO MUCH FOR SHARING THAT
STORY

872
00:42:24,480 --> 00:42:31,160
ESPECIALLY ABOUT THE THINGS THAT YOU DID EARLY
ON THAT

873
00:42:31,160 --> 00:42:32,390
HELPED YOU SUCCEED TO WHERE YOU ARE NOW.

874
00:42:32,390 --> 00:42:33,390
TWO PEOPLE THAT ARE IN COLLEGE OR HAVE ALREADY
MAYBE

875
00:42:33,390 --> 00:42:34,470
HAD SOME OF THE EXPERIENCES OR HAVE GONE THROUGH
ELEMENTARY AND HIGH SCHOOL WHAT WOULD YOU

876
00:42:34,470 --> 00:42:37,150
TELL THEM AS
THEY MOVE ONTO THE NEXT STEP OF THEIR LIFE

877
00:42:37,150 --> 00:42:40,999
POSTCOLLEGE
THAT HELPS YOU CONTINUE BUILDING ON YOUR SUCCESS?

878
00:42:40,999 --> 00:42:41,999
>> GO BACK TO THAT SLIDE.

879
00:42:41,999 --> 00:42:44,530
I THINK THOSE THINGS ARE ALL STILL APPLICABLE.

880
00:42:44,530 --> 00:42:47,570
BUT I WOULD SAY THIS: WHATEVER IT IS THAT
YOU WANT TO

881
00:42:47,570 --> 00:42:50,770
DO IN LIFE, IF YOU LOVE MUSIC AND ART.

882
00:42:50,770 --> 00:42:54,720
IT'S SO IMPORTANT ESPECIALLY AS WE NOW LIVE
IN SPACE.

883
00:42:54,720 --> 00:42:56,900
WE NEED TO TAKE MORE PARTS OF OUR CULTURE.

884
00:42:56,900 --> 00:42:59,110
HUMANS DON'T LIVE BY BREAD ALONE.

885
00:42:59,110 --> 00:43:01,150
IT'S NOT JUST ABOUT THE FOOD AND THE TOILET
IN THE

886
00:43:01,150 --> 00:43:02,160
LIGHT SUPPORT.

887
00:43:02,160 --> 00:43:05,089
YOU WANT MUSIC AND GAMES AND SO THOSE THINGS
ARE

888
00:43:05,089 --> 00:43:06,319
IMPORTANT.

889
00:43:06,319 --> 00:43:08,790
WHILE YOU ARE IN COLLEGE YOU MIGHT WANT TO
GO BE AN

890
00:43:08,790 --> 00:43:10,560
ARTIST, A SINGER, BUT YOU KNOW WHAT?

891
00:43:10,560 --> 00:43:14,329
A TECHNICAL EDUCATION -- I TRIED TO STOP SAYING
STEM

892
00:43:14,329 --> 00:43:17,150
BUT YOU CANNOT GET A DEGREE IN STEM.

893
00:43:17,150 --> 00:43:19,829
BUT SCIENCE TECHNOLOGY ENGINEERING AND MATHEMATICS
WILL

894

00:43:19,829 --> 00:43:20,990

SERVE YOU NO MATTER WHAT.

895

00:43:20,990 --> 00:43:26,080

WE ARE ALL WALKING AROUND WITH AN ELECTRONIC
DEVICE.

896

00:43:26,080 --> 00:43:27,080

YOU WANT TO KNOW HOW IT WORKS.

897

00:43:27,080 --> 00:43:29,490

I ASK IS IF THEY LIKE MOUTH AND HANDS GO UP.

898

00:43:29,490 --> 00:43:30,880

I SAID YOU LIKE MONEY?

899

00:43:30,880 --> 00:43:33,570

PEOPLE WHO ARE GOOD AT THAT OTHER THAN USUALLY
KEEP

900

00:43:33,570 --> 00:43:34,570

MORE.

901

00:43:34,570 --> 00:43:35,570

THERE ARE LOTS OF WAYS TO SKIN THE CAT.

902

00:43:35,570 --> 00:43:39,650

IF YOU STUDY MATH AND SCIENCE, NO MATTER WHAT
YOU WANT

903

00:43:39,650 --> 00:43:42,140

TO DO IN YOUR CAREER, THOSE THINGS ARE GOING
TO SERVE

904

00:43:42,140 --> 00:43:43,660

YOU.

905

00:43:43,660 --> 00:43:44,780

HERE'S ANOTHER.

906
00:43:44,780 --> 00:43:47,069
IF YOU DO GO INTO THE TECHNICAL WORK FORCE.

907
00:43:47,069 --> 00:43:49,480
YOU SAW A PICTURE WHEN I WAS WORKING ON THE
HILL.

908
00:43:49,480 --> 00:43:51,560
I FOUND THAT TECHNICAL FOLKS, THE SCIENCE
AND

909
00:43:51,560 --> 00:43:55,330
TECHNOLOGY WORKFORCE TENDS TO BE A HISTORICAL
AND A

910
00:43:55,330 --> 00:43:58,160
POLITICAL MEANING THEY'RE NOT INTO IT.

911
00:43:58,160 --> 00:43:59,280
IT'S NOT ABOUT POLITICIANS.

912
00:43:59,280 --> 00:44:01,680
POLITICS IS ABOUT THE WILL OF THE PEOPLE,
OUR

913
00:44:01,680 --> 00:44:04,940
STRUCTURE, ROADS, THE THINGS THAT WE SHARE
COLLECTIVELY

914
00:44:04,940 --> 00:44:07,660
AND IT'S IMPORTANT TO FOLLOW ALONG AND UNDERSTAND
HOW

915
00:44:07,660 --> 00:44:09,500
THOSE THINGS WORK.

916
00:44:09,500 --> 00:44:10,810

READ.

917

00:44:10,810 --> 00:44:12,130

READ LONGFORM JOURNALISM.

918

00:44:12,130 --> 00:44:14,869

I COULD GIVE YOU NAMES BUT I MIGHT GET IN TROUBLE.

919

00:44:14,869 --> 00:44:16,589

BUT LONG, WELL WRITTEN ARTICLES.

920

00:44:16,589 --> 00:44:21,160

YOU CAN'T GET ALL YOUR NEWS AND SOCIAL MEDIA. 140 CHARACTERS DON'T CUT IT.

921

00:44:21,160 --> 00:44:23,890

YOU HAVE TO READ THINGS BY PEOPLE WHO HAVE A SPECIALTY.

922

00:44:23,890 --> 00:44:24,890

[APPLAUSE] THREE.

923

00:44:24,890 --> 00:44:28,210

AFTERWARDS, ASK ME WHEN WE ARE OFF THE RECORDER AND

924

00:44:28,210 --> 00:44:30,329

GIVE YOU THINGS THAT YOU CAN FIND OUT ABOUT WHAT'S

925

00:44:30,329 --> 00:44:32,200

GOING ON THE WORLD.

926

00:44:32,200 --> 00:44:33,200

GREAT QUESTION.

927

00:44:33,200 --> 00:44:40,250

THANK YOU.

928
00:44:40,250 --> 00:44:43,070
>> HOW OLD YOU HAVE TO BE TO BE AN ASTRONAUT?

929
00:44:43,070 --> 00:44:44,150
>> WELL.

930
00:44:44,150 --> 00:44:47,329
I THINK WE'VE HAD FOLKS SELECTED IN THEIR
20S.

931
00:44:47,329 --> 00:44:49,450
SO USUALLY A COLLEGE GRADUATE.

932
00:44:49,450 --> 00:44:52,980
MOST OF US, THOUGH, ARE IN OUR 30S WHEN WE
ARE

933
00:44:52,980 --> 00:44:53,980
SELECTED.

934
00:44:53,980 --> 00:44:55,330
I KNOW YOU ARE THINKING WELL.

935
00:44:55,330 --> 00:44:56,630
THAT'S OLD!

936
00:44:56,630 --> 00:44:58,519
[LAUGHTER]
>> YEAH.

937
00:44:58,519 --> 00:45:02,410
>> I'M THINKING -- [LAUGHTER]
>> I LOVE IT.

938
00:45:02,410 --> 00:45:03,410
HONESTLY.

939

00:45:03,410 --> 00:45:05,180
I'M THINKING THAT'S PRETTY YOUNG.

940
00:45:05,180 --> 00:45:06,740
>> GOOD JOB.

941
00:45:06,740 --> 00:45:08,310
>> GOOD QUESTION.

942
00:45:08,310 --> 00:45:09,310
THANK YOU.

943
00:45:09,310 --> 00:45:13,760
>> HAVE YOU EVER LIVED IN SPACE?

944
00:45:13,760 --> 00:45:15,220
>> I HAVE NOT, YET.

945
00:45:15,220 --> 00:45:17,119
I'M WAITING TO BE ASSIGNED TO A MISSION.

946
00:45:17,119 --> 00:45:18,650
WHEN THEY ASKED ME IF I'M READY TO GO, AND
GOING TO SAY

947
00:45:18,650 --> 00:45:21,400
YES LET'S START THIS TRAINING AND I WILL HOPEFULLY
LIVE

948
00:45:21,400 --> 00:45:23,599
ON THE SPACE STATION FOR SIX MONTHS.

949
00:45:23,599 --> 00:45:25,090
BUT NOT YET.

950
00:45:25,090 --> 00:45:27,320
MAYBE SOON.

951

00:45:27,320 --> 00:45:28,440

>> OKAY.

952

00:45:28,440 --> 00:45:32,480

I'VE STILL GOT MY QUIZ.

953

00:45:32,480 --> 00:45:34,250

I WILL ASK YOU QUESTIONS.

954

00:45:34,250 --> 00:45:38,890

HOW FAST IS THE SPACE STATION GOING AROUND
THE EARTH?

955

00:45:38,890 --> 00:45:40,820

>> 17,500 MILES AN HOUR.

956

00:45:40,820 --> 00:45:42,500

THEY ARE GOING TO GET HARDER.

957

00:45:42,500 --> 00:45:43,500

HOW FAST IS.

958

00:45:43,500 --> 00:45:44,500

AAROUND YOURS?

959

00:45:44,500 --> 00:45:45,600

HOW LONG DOES IT TAKE?

960

00:45:45,600 --> 00:45:49,750

>> SPIT IT OUT.

>> 90 MINUTES.

961

00:45:49,750 --> 00:45:53,700

>> SO, HOW MANY TIMES A DAY DOES THE SPACE
STATION SEE

962

00:45:53,700 --> 00:45:59,090

THE SUN RISE AND SET?

963

00:45:59,090 --> 00:46:00,850

CARRIE THE ONE.

964

00:46:00,850 --> 00:46:03,550

[LAUGHTER] 16.

965

00:46:03,550 --> 00:46:07,040

AND WE LOVE SUNRISE AND SAID, DON'T WE?

966

00:46:07,040 --> 00:46:08,099

IT'S A SPECIAL THING.

967

00:46:08,099 --> 00:46:11,210

THEY ARE NOT JUST SITTING AND WATCHING THE
SUNRISE, BUT

968

00:46:11,210 --> 00:46:13,300

SOMETIMES WHEN THEY EVERY TIME, THAT'S WHAT
THEY WANT

969

00:46:13,300 --> 00:46:15,090

TO DO IS LOOK OUT THE WINDOW AND TAKE PICTURES.

970

00:46:15,090 --> 00:46:19,110

>> THANK YOU FOR YOUR WONDERFUL ENLIGHTENED
PRESENTATION.

971

00:46:19,110 --> 00:46:20,260

>> THANK YOU.

972

00:46:20,260 --> 00:46:22,560

>> I HAVE TWO QUESTIONS.

973

00:46:22,560 --> 00:46:28,521

ONE IS WHAT IS THE MOST CHALLENGING OBSTACLE
YOU

974

00:46:28,521 --> 00:46:32,180

OVERCAME AS A TEAM AND AS AN ASTRONAUT AND
SECONDLY,

975

00:46:32,180 --> 00:46:35,800

WHERE DO YOU SEE YOUR FUTURE?

976

00:46:35,800 --> 00:46:38,540

>> MY FUTURE.

977

00:46:38,540 --> 00:46:39,540

GREAT QUESTION, SIR.

978

00:46:39,540 --> 00:46:40,540

THANK YOU.

979

00:46:40,540 --> 00:46:42,750

GREATEST CHALLENGE AS A TEEN IN ASTRONAUT
AND WHAT I

980

00:46:42,750 --> 00:46:43,839

SEE MY FUTURE?

981

00:46:43,839 --> 00:46:46,230

AS A TEAM, IT WAS IGNORANCE.

982

00:46:46,230 --> 00:46:47,230

IT WAS MYSELF.

983

00:46:47,230 --> 00:46:48,280

THAT'S SOMETHING I DID INSIDE.

984

00:46:48,280 --> 00:46:49,869

I TELL YOU STORY.

985

00:46:49,869 --> 00:46:50,869

I DID NOT PUT IN THIS TALK.

986

00:46:50,869 --> 00:46:53,109

I COULD HAVE SAT ON THAT ONE SLIDE OF ALL
THE PEOPLE IN

987

00:46:53,109 --> 00:46:55,829

THE PICTURES FOR THE WHOLE HOUR.

988

00:46:55,829 --> 00:46:57,920

I WAS A PRETTY DECENT ATHLETE.

989

00:46:57,920 --> 00:47:00,210

I WAS THE ATHLETE OF THE YEAR IN MY HIGH SCHOOL.

990

00:47:00,210 --> 00:47:02,869

THE MARINE CORE GAVE ME AN AWARD AND THEN
THE NAVAL

991

00:47:02,869 --> 00:47:05,550

ACADEMY RECRUITER CAME TO MY HOUSE AND SAID
YOU WANT TO

992

00:47:05,550 --> 00:47:09,970

PLAY FOOTBALL AT ANNAPOLIS AND I SAID NO THANK
YOU.

993

00:47:09,970 --> 00:47:12,710

AND THEN NOT LONG AFTER THAT, THE WEST POINT
RECRUITER

994

00:47:12,710 --> 00:47:15,410

CAME AND SAID HEY, DO YOU WANT TO PLAY FOOTBALL
AT WEST

995

00:47:15,410 --> 00:47:17,270

POINT?

996

00:47:17,270 --> 00:47:18,270

AND I SAID NO, THANK YOU.

997

00:47:18,270 --> 00:47:19,270

NOT INTERESTED.

998
00:47:19,270 --> 00:47:23,339
AND ANNAPOLIS ACTUALLY CAME BACK AND SAID,
DO YOU WANT

999
00:47:23,339 --> 00:47:24,339
TO WRESTLE?

1000
00:47:24,339 --> 00:47:26,369
I DID PRETTY GOOD MY SENIOR YEAR AND WAS ALLSTATE
AND

1001
00:47:26,369 --> 00:47:29,700
SAID YOU WANT TO WRESTLE AT ANNAPOLIS?

1002
00:47:29,700 --> 00:47:30,700
YOU KNOW WHAT I SAID?

1003
00:47:30,700 --> 00:47:32,670
NO THANK YOU.

1004
00:47:32,670 --> 00:47:34,620
AND I'M STANDING HERE BEFORE YOU A NAVAL OFFICER
IN A

1005
00:47:34,620 --> 00:47:37,980
NAVAL AVIATOR AND I GAVE UP THAT OPPORTUNITY
TO GET A

1006
00:47:37,980 --> 00:47:41,920
FREE EDUCATION AT AN EQUAL TO AN IVY LEAGUE
INSTITUTION

1007
00:47:41,920 --> 00:47:44,680
AND -- IT WAS BECAUSE OF MY IGNORANCE.

1008
00:47:44,680 --> 00:47:47,470
I WASN'T EXPOSED TO THAT AND I DIDN'T KNOW

WHAT THE

1009

00:47:47,470 --> 00:47:50,060

OPPORTUNITY ON THE OTHER SIDE OF THAT WAS
LIKE.

1010

00:47:50,060 --> 00:47:53,920

AND SO I TELL THAT STORY OFTEN BECAUSE IT
WAS ME, 16,

1011

00:47:53,920 --> 00:47:57,680

17-YEAR-OLD ME, THAT JUST COULDN'T SEE IT.

1012

00:47:57,680 --> 00:48:00,700

BUT EVERYTHING HAPPENS FOR A REASON.

1013

00:48:00,700 --> 00:48:01,839

EVERYTHING HAPPENS FOR A REASON.

1014

00:48:01,839 --> 00:48:05,310

GREATEST OBSTACLE AS AN ASTRONAUT, THIS OPPORTUNITY
IS

1015

00:48:05,310 --> 00:48:06,310

UNIQUE.

1016

00:48:06,310 --> 00:48:08,500

I GOT THE PHONE CALL STANDING IN THE OFFICE
BUILDING.

1017

00:48:08,500 --> 00:48:11,130

I WAS IN THE ROTUNDA.

1018

00:48:11,130 --> 00:48:14,250

I WAS STANDING IN THERE WHEN JANET HAVE ON
THE ASKED ME

1019

00:48:14,250 --> 00:48:16,880

TO WANT TO MOVE TO HOUSTON TO TRAIN TO BE

AN ASTRONAUT?

1020

00:48:16,880 --> 00:48:19,460

THERE'S ONLY ONE ANSWER TO THAT QUESTION.

1021

00:48:19,460 --> 00:48:21,000

[LAUGHTER]

>> YES.

1022

00:48:21,000 --> 00:48:25,099

BUT THAT DECISION ALSO MEANT LEAVING THE NAVY
FULL-TIME.

1023

00:48:25,099 --> 00:48:27,440

I'M STILL ACTIVE DUTY NAVAL OFFICER BUT IT
MEANT

1024

00:48:27,440 --> 00:48:28,440

LEAVING.

1025

00:48:28,440 --> 00:48:30,510

I'VE GOT FRIENDS IN THE AUDIENCE THAT I SERVED
WITH AND

1026

00:48:30,510 --> 00:48:34,800

MY FIRST SQUADRON, HE WAS MY INTELLIGENCE
OFFICER AND

1027

00:48:34,800 --> 00:48:37,119

MY BEST FRIEND IN NAVAL INTELLIGENCE OFFICER.

1028

00:48:37,119 --> 00:48:44,000

HE WAS THE GUY GOOD TO SEE YOUR BROTHER.

1029

00:48:44,000 --> 00:48:46,620

LEAVING THAT -- LEAVING MY NAVY FAMILY IS
BEEN THE

1030

00:48:46,620 --> 00:48:51,799

GREATEST CHALLENGE OF THIS ASTRONAUT JOURNEY
OF MINE.

1031
00:48:54,599 --> 00:48:53,200
>> HI.

1032
00:48:54,599 --> 00:48:56,619
>> YOU HAVE A QUESTION FOR YOU.

1033
00:48:56,619 --> 00:48:57,619
>> YES.

1034
00:48:57,619 --> 00:49:01,609
>> WHAT IS YOUR QUESTION?

1035
00:49:01,609 --> 00:49:02,609
>> HOW LONG DOES IT TAKE TO THE MOON?

1036
00:49:02,609 --> 00:49:03,780
>> HOW LONG DOES IT TAKE TO GET TO THE ROOM?

1037
00:49:03,780 --> 00:49:05,270
THAT IS A GREAT QUESTION!

1038
00:49:05,270 --> 00:49:10,119
SO, I'M NOT A ROCKET SCIENTIST BUT I PLAY
ONE ON TV.

1039
00:49:10,119 --> 00:49:14,741
[LAUGHTER]
>> SO I BELIEVE THE FASTEST THING THAT WE

1040
00:49:14,741 --> 00:49:17,920
SENT IT TO
THE MOON LEFT EARTH BUT WHEN YOU SEE THE BIG

1041
00:49:17,920 --> 00:49:21,520
FIRE
COMING OUT FROM LEFT OFF, TO -- IT WASN'T

1042

00:49:21,520 --> 00:49:23,550

GOING TO THE
MOON IT WAS GOING FATHER.

1043

00:49:23,550 --> 00:49:28,930

IT PASSED THE MOON SIX HOURS LATER.

1044

00:49:28,930 --> 00:49:30,700

SIX HOURS!

1045

00:49:30,700 --> 00:49:32,150

ANYBODY REMEMBER?

1046

00:49:32,150 --> 00:49:33,790

HOW FAR IS THE MOON?

1047

00:49:33,790 --> 00:49:36,030

240,000 MILES.

1048

00:49:36,030 --> 00:49:37,030

WAS IT COOKING?

1049

00:49:37,030 --> 00:49:38,160

IT WAS COOKING.

1050

00:49:38,160 --> 00:49:40,880

THAT WAS THE NEW HORIZON VEHICLE THAT WAS
GOING TO

1051

00:49:40,880 --> 00:49:41,880

PLUTO.

1052

00:49:41,880 --> 00:49:44,060

IT HAD TO GO THAT FAST BECAUSE IT HAD TO GET
ALL THE

1053

00:49:44,060 --> 00:49:45,060

WAY TO PLUTO.

1054

00:49:45,060 --> 00:49:47,200

IT PASSED THE MOON SIX HOURS AFTER TAKEOFF.

1055

00:49:47,200 --> 00:49:49,540

MAYBE IT WAS EIGHT HOURS.

1056

00:49:49,540 --> 00:49:54,500

WHEN WE SEND ASTRONAUTS IT'S A COUPLE DAY TRIP.

1057

00:49:54,500 --> 00:49:56,990

SO IT DEPENDS ON WHAT THE MISSION IS AND WAS GOING AND

1058

00:49:56,990 --> 00:49:58,870

HOW MUCH DO FAST GO WITH IT.

1059

00:49:58,870 --> 00:50:03,980

SO ANYWHERE FROM A FEW HOURS TO A COUPLE, A FEW DAYS.

1060

00:50:03,980 --> 00:50:05,540

GOOD QUESTION.

1061

00:50:05,540 --> 00:50:16,980

YOU ARE VERY WELCOME.

1062

00:50:16,980 --> 00:50:18,450

I'VE GOT MORE QUIZ QUESTIONS.

1063

00:50:18,450 --> 00:50:19,450

ALL RIGHT.

1064

00:50:19,450 --> 00:50:21,660

AND THIS WHEN THERE IS NO ANSWER KEY FOR.

1065

00:50:21,660 --> 00:50:24,230
WHAT YOU THINK ONE OF THE BIGGEST CHALLENGES
FOLKS HAVE

1066
00:50:24,230 --> 00:50:26,829
AND ADJUSTING TO LIVING IN SPACES?

1067
00:50:26,829 --> 00:50:28,301
THIS IS SOMETHING THAT CHANGES.

1068
00:50:28,301 --> 00:50:33,410
THIS IS IT LIKE A HARD AND FAST THING BUT
SIR?

1069
00:50:33,410 --> 00:50:38,190
>> WELL I'M PRETTY SURE DOES IT AFFECT HOW
YOU GROW?

1070
00:50:38,190 --> 00:50:39,380
IT DOES AFFECT YOU GROW.

1071
00:50:39,380 --> 00:50:42,800
YOU GAIN AN INCH OR TWO WHEN YOU GO UP THERE.

1072
00:50:42,800 --> 00:50:43,910
>> GETTING NAUSEOUS.

1073
00:50:43,910 --> 00:50:45,400
>> YOU DO GET ADJUSTMENT.

1074
00:50:45,400 --> 00:50:47,620
WHERE YOU FEEL CONGESTED.

1075
00:50:47,620 --> 00:50:52,410
YOU FEEL YOUR STOMACH AND YOU MAY BE GETTING
NAUSEOUS.

1076
00:50:52,410 --> 00:50:54,109
THIS COULD BE A LONG-TERM THING.

1077

00:50:54,109 --> 00:50:58,050

YOU MAY ADJUST TO THAT OVER TIME, I USED TO
THINK YOU

1078

00:50:58,050 --> 00:51:01,940

KNOW WHEN YOU SEE THOSE COMMERCIALS ON TV
FOR A NEW

1079

00:51:01,940 --> 00:51:02,940

BED?

1080

00:51:02,940 --> 00:51:03,940

WHAT ARE THEY TELL YOU?

1081

00:51:03,940 --> 00:51:06,349

THIS IS MADE WITH THE SAME TECHNOLOGY THAT
NASA USES

1082

00:51:06,349 --> 00:51:07,349

HERE.

1083

00:51:07,349 --> 00:51:10,579

YOU'RE LIKE FLOATING IN SPACE MUST BE THE
BEST NIGHT

1084

00:51:10,579 --> 00:51:12,089

SLEEP.

1085

00:51:12,089 --> 00:51:15,030

AND SLEEP, FOR SOME PEOPLE IS GREAT AND FOR
SOME PEOPLE

1086

00:51:15,030 --> 00:51:16,960

THAT'S ONE OF THE TOUGHEST THINGS TO DO.

1087

00:51:16,960 --> 00:51:17,960

THINK ABOUT THIS.

1088

00:51:17,960 --> 00:51:23,040

YOU ARE PROBABLY FLOATING, BUT WHEN YOU GET
IN THE BED,

1089

00:51:23,040 --> 00:51:24,960

THE COOL SHEETS.

1090

00:51:24,960 --> 00:51:27,859

THAT'S A SENSATION THAT YOU ARE USED TO.

1091

00:51:27,859 --> 00:51:30,770

LAYING DOWN -- I'M STANDING IN THE PRESSURES
ON THE

1092

00:51:30,770 --> 00:51:31,770

BOTTOM OF MY FEET.

1093

00:51:31,770 --> 00:51:34,350

MY HEART IS PUSHING THE BLOOD AROUND.

1094

00:51:34,350 --> 00:51:36,180

WHEN YOU LAY DOWN, THAT CHANGES.

1095

00:51:36,180 --> 00:51:39,030

YOUR BODY SENSES ALL OF THAT.

1096

00:51:39,030 --> 00:51:42,000

THE TECH TELL SENSATION OF LAYING, ALL THAT
PRESSURE

1097

00:51:42,000 --> 00:51:43,680

ALONG YOUR BODY.

1098

00:51:43,680 --> 00:51:46,700

WE TRY TO SIMULATE THAT BY STRIPPING IN A
SLEEPING BAG

1099

00:51:46,700 --> 00:51:48,730

INTO YOUR CREW QUARTERS AND THEN YOU KIND
OF STRAP

1100

00:51:48,730 --> 00:51:50,900

YOURSELF INTO IT SO IT HOLDS YOU UP AGAINST
THE WALL,

1101

00:51:50,900 --> 00:51:53,319

BUT YOU CAN'T LAY DOWN IN SPACE.

1102

00:51:53,319 --> 00:51:55,550

THINK ABOUT IT.

1103

00:51:55,550 --> 00:51:58,099

SO SLEEP IS ONE OF THE MORE CHALLENGING THINGS
TO DO.

1104

00:51:58,099 --> 00:51:59,099

THE OTHER ONE?

1105

00:51:59,099 --> 00:52:00,099

USING THE BATHROOM.

1106

00:52:00,099 --> 00:52:01,190

WE WON'T TALK ABOUT THAT.

1107

00:52:01,190 --> 00:52:07,989

[LAUGHTER]

>> HOW LONG DOES IT TAKE TO GET TO SATURN?

1108

00:52:07,989 --> 00:52:09,349

>> I'M SORRY?

1109

00:52:11,490 --> 00:52:10,450

>> HOW LONG DOES IT TAKE TO GET TO SATURN?

1110

00:52:11,490 --> 00:52:14,130

PROBABLY NOT NINE YEARS LIKE PLUTO BECAUSE
IT'S CLOSER,

1111

00:52:14,130 --> 00:52:15,599

BUT YOU KNOW WHAT?

1112

00:52:15,599 --> 00:52:18,300

LET'S ASK SOMEONE EXACTLY AND SEE IF WE CAN
GET

1113

00:52:18,300 --> 00:52:20,579

OURSELVES AN ANSWER HERE.

1114

00:52:20,579 --> 00:52:23,970

LET'S SEE.

1115

00:52:23,970 --> 00:52:29,410

SIRI, HOW LONG DOES IT TAKE TO GET TO SATURN?

1116

00:52:29,410 --> 00:52:30,490

>> OKAY.

1117

00:52:30,490 --> 00:52:34,810

GIVE ME A MOMENT.

1118

00:52:34,810 --> 00:52:40,200

HERE IS WHAT I FOUND.

1119

00:52:40,200 --> 00:52:42,359

>> 6.05 YEARS.

1120

00:52:42,359 --> 00:52:43,460

THAT'S WHAT SIRI SAYS.

1121

00:52:43,460 --> 00:52:44,950

YOU KNOW WHAT I THINK YOU SHOULD DO?

1122

00:52:44,950 --> 00:52:49,300

YOU LOOK IT UP AND YOU TELL ME WHEN I COME
BACK.

1123

00:52:49,300 --> 00:52:51,680

DEAL?

1124

00:52:51,680 --> 00:52:56,790

[LAUGHTER] MORE QUESTIONS KEITH WILL LISTEN,
OUT OF MY

1125

00:52:56,790 --> 00:52:58,780

ETIQUETTE FOR YOUR TIME -- PLEASE.

1126

00:52:58,780 --> 00:53:04,890

>> I WANT TO TALK TO PEOPLE ABOUT SPACE EXPLORATION
AND

1127

00:53:04,890 --> 00:53:12,050

THE BENEFITS FOR ACTUAL PEOPLE, MANKIND, WOULD
YOU TELL

1128

00:53:12,050 --> 00:53:13,740

THEM ABOUT THAT?

1129

00:53:13,740 --> 00:53:19,650

I'VE BEEN DISCOVERING MORE THINGS THAT HAVE
A DIRECT

1130

00:53:19,650 --> 00:53:20,650

IMPACT ON OUR LIVES.

1131

00:53:20,650 --> 00:53:21,650

>> ABSOLUTELY.

1132

00:53:21,650 --> 00:53:22,650

IT DEPENDS ON HOW MUCH TIME HAVE.

1133

00:53:22,650 --> 00:53:24,971

AS YOU CAN SEE, LIKE TO DISCUSS THIS KIND
OF STUFF.

1134

00:53:24,971 --> 00:53:27,130

IT'S INTERESTING TO ME.

1135

00:53:27,130 --> 00:53:31,059

SO, ONE OF THE THINGS THAT WE HAVE WORKING
ON THE SPACE

1136

00:53:31,059 --> 00:53:33,250

STATION EXPERIMENT THAT'S GOING ON IS THIS
PROTEIN

1137

00:53:33,250 --> 00:53:36,579

CRYSTAL GROWTH EXPERIMENT WHERE WE CAN GROW
VERY NICELY

1138

00:53:36,579 --> 00:53:38,600

STRUCTURED AND LARGER PROTEIN CRYSTALS.

1139

00:53:38,600 --> 00:53:40,720

WHAT THAT ENABLES US TO DO ON THE PLANET'S
MAIN

1140

00:53:40,720 --> 00:53:43,950

CHEMICAL THERAPY MEDICINES THAT ARE BETTER
AND MORE

1141

00:53:43,950 --> 00:53:46,950

SUITED FOR WHATEVER IT IS THAT YOU'RE TAKING
IT FOR.

1142

00:53:46,950 --> 00:53:48,220

SO THAT IS NEW.

1143

00:53:48,220 --> 00:53:50,309

PHARMACEUTICAL COUNTRIES – COMPANIES ARE
INTERESTED.

1144

00:53:50,309 --> 00:53:54,170

IS IT FEASIBLE TO MANUFACTURE THINGS IN SPACE

ARE WHAT

1145

00:53:54,170 --> 00:53:57,340

WE LEARN ABOUT THEM IN SPACE CAN WE MAKE BETTER
TURTLES

1146

00:53:57,340 --> 00:53:58,340

HERE ON THE BROWN.

1147

00:53:58,340 --> 00:54:04,360

HERE'S ANOTHER ONE COKE --.

WE ARE ONE OF THE PRIMARY RESEARCH OBJECTS.

1148

00:54:04,360 --> 00:54:05,360

BONE HEALTH.

1149

00:54:05,360 --> 00:54:08,730

YOU'VE GOT THIS TRABECULAR BONE THROUGH THE
HARD AND

1150

00:54:08,730 --> 00:54:11,700

SOFTER INSIDE LIKE THE NARROW ON A CHICKEN
LEG.

1151

00:54:11,700 --> 00:54:13,940

THOSE TWO PARTS OF YOUR BONE GO AWAY AND COME
BACK AT

1152

00:54:13,940 --> 00:54:14,940

DIFFERENT RATES.

1153

00:54:14,940 --> 00:54:16,859

WERE FINDING ASTRONAUTS WERE COMING HOME WITH
LESS

1154

00:54:16,859 --> 00:54:17,950

DENSE BONES.

1155

00:54:17,950 --> 00:54:20,790

WE DEVELOPED MEDICATIONS THEY CAN TAKE.

1156

00:54:20,790 --> 00:54:23,560

BUT WE CHANGE OUR EXERCISES.

1157

00:54:23,560 --> 00:54:26,000

WE HAVE A MACHINE LIKE A BIG WEIGHT MACHINE
AND YOU'VE

1158

00:54:26,000 --> 00:54:28,220

GOT TO LIFT HEAVY.

1159

00:54:28,220 --> 00:54:31,230

YOU ARE LIFTING HEAVY WEIGHTS, 600 POUNDS
AND IS A

1160

00:54:31,230 --> 00:54:33,580

VACUUM TUBE BECAUSE THERE'S NO WAY.

1161

00:54:33,580 --> 00:54:36,089

BUT YOU'VE GOT THIS WEIGHT PROTOCOL AND A
RUNNING

1162

00:54:36,089 --> 00:54:37,089

PROTOCOL.

1163

00:54:37,089 --> 00:54:39,380

WE STARTED SPRINTING BECAUSE THEY FOUND THAT
THE

1164

00:54:39,380 --> 00:54:44,380

STRENGTH HELPS YOUR BONES TO STAY MORE DENSE.

1165

00:54:44,380 --> 00:54:46,890

GUESS WHO REALLY CARES ABOUT THAT?

1166

00:54:46,890 --> 00:54:50,760

HALF OF THE WORLD'S POPULATION, WOMEN.

1167

00:54:50,760 --> 00:54:51,920

OSTEOPOROSIS.

1168

00:54:51,920 --> 00:54:53,089

YEAH.

1169

00:54:53,089 --> 00:54:55,410

SO THOSE -- THAT RESEARCH IS GOING ON RIGHT
NOW.

1170

00:54:55,410 --> 00:54:58,630

I CAN GUARANTEE YOU THOSE THINGS ARE BEING
FED ON THE

1171

00:54:58,630 --> 00:55:01,740

SURFACE TO HELP FOLKS ON THE PLANET DEAL WITH
BONE

1172

00:55:01,740 --> 00:55:03,990

HEALTH.

1173

00:55:03,990 --> 00:55:04,990

LOTS OF GOOD THINGS.

1174

00:55:04,990 --> 00:55:06,970

AND THOSE WEBSITES THAT I PUT UP THERE, YOU
CAN READ

1175

00:55:06,970 --> 00:55:10,970

ABOUT THAT YOU CAN SPEND IT READING.

1176

00:55:10,970 --> 00:55:12,730

GOOD QUESTION.

1177

00:55:12,730 --> 00:55:14,489

THANK YOU.

1178

00:55:14,489 --> 00:55:15,489

>> HI.

1179

00:55:15,489 --> 00:55:18,089

>> I.

>> DO YOU HAVE A QUESTION?

1180

00:55:18,089 --> 00:55:19,089

>> YES.

1181

00:55:19,089 --> 00:55:20,089

>> WHAT YOUR QUESTION?

1182

00:55:26,290 --> 00:55:23,839

>> HOW DOES IT FEEL TO BE IN A ROCKETSHIP?

1183

00:55:26,290 --> 00:55:28,700

WELL I HAVEN'T BEEN IN A ROCKETSHIP I'VE BEEN
IN A

1184

00:55:28,700 --> 00:55:29,980

SPACECRAFT.

1185

00:55:29,980 --> 00:55:35,549

IT'S UNREAL TO KNOW THAT SOMETHING YOU ARE
AND IS GOING

1186

00:55:35,549 --> 00:55:36,549

TO GO INTO SPACE.

1187

00:55:36,549 --> 00:55:37,549

VERY UNREAL AND COOL.

1188

00:55:37,549 --> 00:55:38,549

GREAT QUESTION.

1189

00:55:38,549 --> 00:55:39,549

THANK YOU FOR THE QUESTIONS.

1190

00:55:39,549 --> 00:55:40,549

OKAY.

1191

00:55:40,549 --> 00:55:41,549

I THINK THEY'RE GIVING ME THE SIGNAL THAT
WE HAVE TO

1192

00:55:41,549 --> 00:55:42,549

WRAP IT UP.

1193

00:55:42,549 --> 00:55:44,130

THANK YOU FOR YOUR TIME IN COMING OUT AND
ALLOWING ME

1194

00:55:44,130 --> 00:55:45,130

TO DO THIS.