1
00:00:00,130 --> 00:00:04,790
>> GOOD MORNING COLONEL FISCHER AND WELCOME
TO LEEDS ELEMENTARY SCHOOL HERE IN ELKTON

2
00:00:04,790 --> 00:00:07,200
MARYLAND.

3
00:00:07,200 --> 00:00:11,180
OUR FIRST LADY ASTRONAUT SALLY
RIDE ONCE SAID OUR FUTURE LIES

4
00:00:11,180 --> 00:00:14,170
WITH TODAYS KIDS AND THE FUTURE
SPACE EXPLORATION.

5
00:00:14,170 --> 00:00:19,699
STUDENTS ARE OUR GREATEST ASSET.

6
00:00:19,699 --> 00:00:23,769
WE'RE VERY EXCITED FOR THEM FOR
THE WONDERFUL OPPORTUNITY.

7
00:00:23,769 --> 00:00:28,630
WE LOOK FORWARD TO THE FUTURE
AND WHAT THE CHILDREN AND SPACE

8
00:00:28,630 --> 00:00:30,830
EXPLORATION WILL BRING TO OUR
LIVES.

9
00:00:30,830 --> 00:00:35,340
THANK YOU, AND HAVE A SAFE TRIP.

10
00:00:35,340 --> 00:00:40,810
>> WELL, THANK YOU
FOR THOSE GREAT WORDS.

11
00:00:40,810 --> 00:00:42,760
WHAT QUESTIONS DO Y'ALL HAVE?

12
00:00:42,760 --> 00:00:43,760
>> OKAY.

13
00:00:43,760 --> 00:00:48,610
OUR FIRST QUESTION IS GOING TO
BE FROM FOURTH GRADER JUSTIN

14
00:00:48,610 --> 00:00:50,680
MCMILLAN.

15
00:00:50,680 --> 00:00:53,910
>> HOW DID YOU BECOME INTERESTED
IN WORKING FOR NASA?

16
00:00:53,910 --> 00:00:59,100
>> WELL, JUSTIN,
WHICH WAS WHEN I WAS SIX YEARS

17
00:00:59,100 --> 00:01:01,160
OLD, SO EVEN YOUNGER THAN YOU
GUYS.

18
00:01:01,160 --> 00:01:05,770
I VISITED MY GRANDPA IN HOUSTON.

19
00:01:05,770 --> 00:01:10,530
AND THIS HUGE ROCKET, SATURN 5,
WAS SITTING OUTSIDE.

20
00:01:10,530 --> 00:01:14,170
I GOT TO SEE IT, AND IT CAPTURED
MY IMAGINATION.

21
00:01:14,170 --> 00:01:18,920
AND EVER SINCE THEN, I WANTED TO
DO SOMETHING WITH SPACE AND

22
00:01:18,920 --> 00:01:22,909

SERVE MY COUNTRY, SO THE AIR
FORCE ACADEMY WAS A NO-BRAINER

23
00:01:22,909 --> 00:01:29,909
FOR ME, AND THE REST IS HISTORY.

24
00:01:29,909 --> 00:01:31,189
>> THANK YOU FOR THAT, COLONEL
FISCHER.

25
00:01:31,189 --> 00:01:34,469
OUR NEXT QUESTION COMES FROM
FIFTH GRADER CHASE STALLINGS.

26
00:01:34,469 --> 00:01:41,950
>> WHAT IS THE MOST INTERESTING
THING YOU'VE EVER SEEN IN SPACE?

27
00:01:41,950 --> 00:01:43,470
>> OH, MY GOSH.

28
00:01:43,470 --> 00:01:48,159
THAT'S A TOUGH QUESTION BECAUSE
SO MUCH STUFF IS COOL.

29
00:01:48,159 --> 00:01:51,530
IT COULD BE EVEN THE SMALLEST
THING LIKE HOW A BUBBLE BEHAVES

30
00:01:51,530 --> 00:01:57,249
WHEN IT COMES OFF A CONNECTOR OR
IT CAN BE THE GRANDEUR YOU SEE

31
00:01:57,249 --> 00:01:58,789
WHEN YOU LOOK OUT THE WINDOW.

32
00:01:58,789 --> 00:02:02,770
I THINK PROBABLY THE COOLEST
THING I'VE SEEN SO FAR IS WHEN I

33
00:02:02,770 --> 00:02:08,750
WENT OUTSIDE FOR A SPACEWALK,
JUST HAVING NO SMALL LITTLE

34
00:02:08,750 --> 00:02:14,690
WINDOW TO LOOK THROUGH BUT THE
ENTIRETY OF SPACE.

35
00:02:14,690 --> 00:02:18,401
IN MY FIELD OF VIEW, IT WAS
AMAZING AND BREATHTAKING, AND I

36
00:02:18,401 --> 00:02:24,010
THINK SEEING THE EARTH IN THAT
WAY AND THE STARS ABOVE THEM WAS

37
00:02:24,010 --> 00:02:27,349
THE COOLEST THING I'VE SEEN BY
FAR.

38
00:02:27,349 --> 00:02:29,830
>> THANKS, COLONEL FISCHER.

39
00:02:29,830 --> 00:02:34,200
OUR NEXT QUESTION IS FROM PRE-K
STUDENT WILLIAM LARER.

40
00:02:34,200 --> 00:02:42,430
>> WHAT DO YOU EAT IN SPACE?

41
00:02:42,430 --> 00:02:46,370
>> I LIKE TO EAT
EVERYTHING IN HERE BECAUSE I CAN

42
00:02:46,370 --> 00:02:49,430
PLAY WITH MY FOOD, BUT MY
FAVORITE IS COFFEE BALL.

43
00:02:49,430 --> 00:02:53,380

SO I WILL SHOW YOU A COFFEE
BALL.

44
00:02:53,380 --> 00:02:55,540
COFFEE, I LOVE COFFEE ON EARTH.

45
00:02:55,540 --> 00:03:00,260
IT'S PRETTY MUCH MY FAVORITE
THING, BUT IN SPACE, I GET TO

46
00:03:00,260 --> 00:03:01,410
MAKE BALLS OUT OF IT.

47
00:03:01,410 --> 00:03:03,980
SO CHECK THIS OUT.
AND THEN SUCK THE BALLS.

48
00:03:03,980 --> 00:03:04,980
VERY COOL.

49
00:03:04,980 --> 00:03:26,400
HERE YOU GO.

50
00:03:26,400 --> 00:03:27,520
THAT ONE GOT AWAY FROM ME.

51
00:03:27,520 --> 00:03:31,330
AS YOU CAN SEE, IT'S PRETTY FUN
TO PLAY WITH YOUR FOOD IN SPACE,

52
00:03:31,330 --> 00:03:38,900
SO THAT PRETTY MUCH MAKES
EVERYTHING MY FAVORITE DISH.

53
00:03:38,900 --> 00:03:41,840
>> THANK YOU, OUR NEXT QUESTION
IS FROM SECOND GRADER CARLY

54
00:03:41,840 --> 00:03:42,840

ENGLAND.

55
00:03:42,840 --> 00:03:50,849
>> WHAT DO YOU HAVE TO DO TO
PREPARE FOR A SPACEWALK?

56
00:03:50,849 --> 00:03:54,530
>> WELL, IT'S
PRETTY TOUGH.

57
00:03:54,530 --> 00:04:01,620
THE SUIT IS REALLY -- YOU HAVE
TO BE KIND OF STRONG TO WORK

58
00:04:01,620 --> 00:04:05,630
AGAINST THE SUIT BECAUSE IT'S
PRESSURIZED WHEN YOU GO OUTSIDE,

59
00:04:05,630 --> 00:04:09,480
SO IT TAKES A LOT OF TRAINING,
PHYSICAL TRAINING, AND THEN WE

60
00:04:09,480 --> 00:04:13,950
HAVE THIS REALLY BIG SWIMMING
POOL IN HOUSTON CALLED THE

61
00:04:13,950 --> 00:04:17,630
NEUTRAL BUOYANCY LABORATORY, AND
THERE'S A BIG MOCK-UP OF THE

62
00:04:17,630 --> 00:04:19,600
SPACE STATION INSIDE THE POOL.

63
00:04:19,600 --> 00:04:26,130
SO WE GO IN THE POOL AND THESE
AWESOME DIVERS WEIGH US OUT SO

64
00:04:26,130 --> 00:04:29,510
IT'S LIKE WE'RE IN ZERO G AND WE
CAN PRACTICE.

65
00:04:29,510 --> 00:04:33,560
SO WE DO A LOT OF PRACTICE IN
THE POOL AND A LOT OF STUDYING

66
00:04:33,560 --> 00:04:37,100
ON THE SYSTEMS THAT ARE IN OUR
SPACE SUIT IN ORDER TO GO

67
00:04:37,100 --> 00:04:42,220
OUTSIDE, BUT IT'S COMPLETELY
WORTH IT BECAUSE IT'S SO FUN OUT

68
00:04:42,220 --> 00:04:43,430
THERE.

69
00:04:43,430 --> 00:04:45,830
>> THANK YOU.

70
00:04:45,830 --> 00:04:48,810
OUR NEXT QUESTION IS FROM FIRST
GRADER AXLE PASCHEL.

71
00:04:48,810 --> 00:04:52,470
>> WHAT IS A TYPICAL DAY LIKE
FOR YOU ON THE INTERNATIONAL

72
00:04:52,470 --> 00:04:55,090
SPACE STATION?

73
00:04:55,090 --> 00:04:59,430
>> WELL, ACTUALLY
IT'S PRETTY BUSY.

74
00:04:59,430 --> 00:05:03,790
WE GET UP -- WELL, PEGGY GETS UP
EARLIER THAN I DO, BUT WE GET UP

75
00:05:03,790 --> 00:05:04,960

PRETTY EARLY.

76
00:05:04,960 --> 00:05:06,290
WORK OUT.

77
00:05:06,290 --> 00:05:11,250
WE HAVE TO DO ABOUT 2.5 HOURS OF
WORKING OUT A DAY IN ORDER TO

78
00:05:11,250 --> 00:05:16,000
KEEP OUR BONES AND MUSCLES FROM
ATROPHYING AND LOSING PART OF

79
00:05:16,000 --> 00:05:17,090
OUR BONES.

80
00:05:17,090 --> 00:05:21,650
AND WE HAVE SCIENCE.

81
00:05:21,650 --> 00:05:26,990
WE FIX THINGS, AND WE KEEP STUFF
CLEAN AND RUNNING AND CHANGE OUT

82
00:05:26,990 --> 00:05:27,990
PARTS.

83
00:05:27,990 --> 00:05:29,390
SO WE'RE JUST VERY BUSY.

84
00:05:29,390 --> 00:05:31,520
THE BIGGEST PART OF OUR DAY IS
SCIENCE.

85
00:05:31,520 --> 00:05:35,920
SO WE DO ALMOST 300 EXPERIMENTS
OVER MY SIX-MONTH MISSION WE'LL

86
00:05:35,920 --> 00:05:37,490
BE INVOLVED IN.

87
00:05:37,490 --> 00:05:45,020
SO WE JUST KEEP VERY BUSY, AND
ALL OF IT IS FUN.

88
00:05:45,020 --> 00:05:46,020
>> THANK YOU.

89
00:05:46,020 --> 00:05:48,740
OUR NEXT QUESTION IS FROM THIRD
GRADER RYAN DOMINIC.

90
00:05:48,740 --> 00:05:53,290
>> HOW IS ELECTRICITY FOR THE
SPACE STATION GENERATED, AND

91
00:05:53,290 --> 00:05:59,130
WHAT HAPPENS WHEN THE POWER GOES
OUT?

92
00:05:59,130 --> 00:06:02,080
>> WELL, WE HAVE
REALLY BIG SOLAR RAYS.

93
00:06:02,080 --> 00:06:05,220
SO THE SIZE OF THE SPACE
STATION, IF YOU GO FROM CORNER

94
00:06:05,220 --> 00:06:09,390
TO CORNER ON THE SOLAR RAYS IS
ABOUT AS BIG AS A FOOTBALL

95
00:06:09,390 --> 00:06:10,390
FIELD.

96
00:06:10,390 --> 00:06:11,390
IT'S HUGE.

97
00:06:11,390 --> 00:06:14,800

IT MAKES TONS OF POWERS, AND
THOSE SOLAR RAYS CHARGES

98
00:06:14,800 --> 00:06:15,840
BATTERIES.

99
00:06:15,840 --> 00:06:19,240
EVERY 90 MINUTES WE GO AROUND
THE EARTH.

100
00:06:19,240 --> 00:06:23,740
SO THERE'S ABOUT 45 MINUTES OF
LIGHT AND 45 MINUTES OF DARK.

101
00:06:23,740 --> 00:06:27,169
SO WE CHARGE UP THE BATTERIES
AND THEN WE USE THE BATTERIES.

102
00:06:27,169 --> 00:06:31,540
IF WE HAVE A PROBLEM, WE HAVE
EIGHT DIFFERENT CHANNELS THAT WE

103
00:06:31,540 --> 00:06:36,450
CAN USE SO THERE'S BACK-UPS IF
WE HAVE A PROBLEM WITH OUR

104
00:06:36,450 --> 00:06:37,690
POWER.

105
00:06:37,690 --> 00:06:41,180
IF WE START LOSING TOO MANY
CHANNELS, WE HAVE TO START

106
00:06:41,180 --> 00:06:44,090
TURNING STUFF OFF AND LOSE
SCIENCE, SO THAT'S NOT A VERY

107
00:06:44,090 --> 00:06:45,210
GOOD DAY.

108
00:06:45,210 --> 00:06:48,900
SO WE WANT TO MAKE SURE WE DON'T
LOSE POWER, CERTAINLY NOT A LOT

109
00:06:48,900 --> 00:06:52,580
OF POWER.

110
00:06:52,580 --> 00:06:53,580
>> THANK YOU.

111
00:06:53,580 --> 00:06:56,460
OUR NEXT QUESTION IS FROM THIRD
GRADER VICTORIA GRANGER.

112
00:06:56,460 --> 00:06:58,970
>> DO YOU HAVE ANIMALS IN SPACE?

113
00:06:58,970 --> 00:07:01,580
IF SO, DO YOU HAVE ANY WITH YOU?

114
00:07:01,580 --> 00:07:07,050
>> WE DO.

115
00:07:07,050 --> 00:07:10,590
SO OVER THE COURSE OF THE SPACE
PROGRAM, WE'VE HAD A LOT OF

116
00:07:10,590 --> 00:07:12,919
ANIMALS IN SPACE.

117
00:07:12,919 --> 00:07:17,560
FISH, MICE, FRUIT FLIES.

118
00:07:17,560 --> 00:07:22,580
WE USE ANIMALS AND THEY HELP US
IN OUR STUDIES OF DIFFERENT

119
00:07:22,580 --> 00:07:27,900

PARTS OF NOT ONLY THE HUMAN BODY
BUT IN GENERAL.

120
00:07:27,900 --> 00:07:31,350
YOU KNOW, THINGS THAT YOU
WOULDN'T EVENT KNOW, LIKE A

121
00:07:31,350 --> 00:07:36,490
FRUIT FLY, HAS A SIMILAR CARDIAC
SYSTEM TO HUMANS, AND MICE HAVE

122
00:07:36,490 --> 00:07:38,260
SIMILAR BONES.

123
00:07:38,260 --> 00:07:42,290
SO WE'RE ABLE TO LOOK AT THE
EFFECTS OF ZERO G ON THOSE

124
00:07:42,290 --> 00:07:47,340
ANIMALS, AND IT'S VERY HELPFUL.

125
00:07:47,340 --> 00:07:48,340
>> THANK YOU.

126
00:07:48,340 --> 00:07:52,630
OUR NEXT QUESTION IS FROM
KINDERGARTNER ABBY GUNN.

127
00:07:52,630 --> 00:08:05,029
>> WHEN SOMETHING BREAKS, HOW DO
YOU FIX IT?

128
00:08:05,029 --> 00:08:08,300
>> JI KIND OF
MISSED THAT ONE.

129
00:08:08,300 --> 00:08:09,300
>> OKAY.

130

00:08:09,300 --> 00:08:13,490
THE QUESTION WAS: IF EQUIPMENT
ON THE SPACE STATION BREAKS OR

131
00:08:13,490 --> 00:08:17,710
MALFUNCTIONS, HOW DO YOU FIX IT?

132
00:08:17,710 --> 00:08:18,710
>> SORRY ABOUT
THAT.

133
00:08:18,710 --> 00:08:21,660
MY EARS ARE GETTING KIND OF OLD.

134
00:08:21,660 --> 00:08:23,130
IT DEPENDS ON WHAT IT IS.

135
00:08:23,130 --> 00:08:27,740
SOME THINGS WE HAVE SPARES FOR
THAT WE CAN PLUG IN NEW ONES.

136
00:08:27,740 --> 00:08:31,580
SOMETIMES IT'S OUTSIDE SO WE GET
TO DO A SPACEWALK TO FIX IT.

137
00:08:31,580 --> 00:08:32,700
THAT'S COOL.

138
00:08:32,700 --> 00:08:36,940
OR IT'S SOMETHING WHERE WE HAVE
TO KIND OF TAKE IT APART AND

139
00:08:36,940 --> 00:08:39,260
REPLACE PARTS OR FIX WIRES.

140
00:08:39,260 --> 00:08:43,339
SO IT JUST DEPENDS ON WHAT IT
IS.

141

00:08:43,339 --> 00:08:48,210
ALL OF IT IS VERY FUN BECAUSE
YOU ARE DOING IT IN SPACE, AND

142
00:08:48,210 --> 00:08:52,770
THEY TYPICALLY DESIGN ALL OF THE
SYSTEMS SO THAT WE CAN DO THEM

143
00:08:52,770 --> 00:08:57,580
EASILY HERE IN ZERO GRAVITY.

144
00:08:57,580 --> 00:08:58,580
>> THANK YOU.

145
00:08:58,580 --> 00:09:01,880
OUR NEXT QUESTION COMES FROM
FIFTH GRADER SOLOMAN POPE.

146
00:09:01,880 --> 00:09:08,970
>> WHAT IS THE HARDEST THING TO
GET USED TO IN SPACE?

147
00:09:08,970 --> 00:09:10,440
>> WELL, I DON'T
KNOW.

148
00:09:10,440 --> 00:09:14,520
I THINK I GOT USED TO IT PRETTY
QUICK BECAUSE IT'S SO FUN TO FLY

149
00:09:14,520 --> 00:09:18,310
AROUND AND SPIN AND PLAY WITH MY
FOOD.

150
00:09:18,310 --> 00:09:20,870
I GUESS THE HARDEST THING TO GET
USED TO, AND I DON'T KNOW THAT I

151
00:09:20,870 --> 00:09:27,329
EVER WILL, IS JUST BEING AWAY

FROM MY FAMILY.

152
00:09:27,329 --> 00:09:28,329
>> THANK YOU.

153
00:09:28,329 --> 00:09:30,940
OUR NEXT QUESTION IS FROM
KINDERGARTNER LILLIAN RHODES.

154
00:09:30,940 --> 00:09:37,160
>> WHAT DO YOU MISS MOST ABOUT
BEING ON EARTH?

155
00:09:37,160 --> 00:09:42,480
>> WELL, I THINK
IT -- WELL, I KNOW.

156
00:09:42,480 --> 00:09:43,480
IT'S MY WIFE.

157
00:09:43,480 --> 00:09:47,000
I MISS MY BANDIT AND MY GIRLS.

158
00:09:47,000 --> 00:09:53,560
I MISS MOST MY FAMILY.

159
00:09:53,560 --> 00:09:54,560
>> THANK YOU.

160
00:09:54,560 --> 00:09:58,120
OUR NEXT QUESTION IS FROM SECOND
GRADER, JAMIE O'CONNELL.

161
00:09:58,120 --> 00:10:06,810
>> WHAT TYPES OF TRAININGS ARE
INVOLVED IN PREPARING TO GO TO

162
00:10:06,810 --> 00:10:09,180
THE SPACE STATION?

163
00:10:09,180 --> 00:10:11,920
>> WELL, IT'S A
LOT OF TRAINING.

164
00:10:11,920 --> 00:10:14,209
WE HAVE TO KNOW A LOT OF THINGS.

165
00:10:14,209 --> 00:10:17,480
THERE'S AN OLD SAYING CALLED
JACK-OF-ALL-TRADES, MASTER OF

166
00:10:17,480 --> 00:10:19,200
NONE.

167
00:10:19,200 --> 00:10:20,560
THAT'S KIND OF US.

168
00:10:20,560 --> 00:10:23,920
WE HAVE TO BE FAMILIAR WITH A
LOT OF DIFFERENT THINGS FROM

169
00:10:23,920 --> 00:10:28,870
DRIVING A ROBOTIC ARM OR DOING
SPACEWALKS TO DOING DIFFERENT

170
00:10:28,870 --> 00:10:31,480
TYPES OF SCIENCE SKILLS.

171
00:10:31,480 --> 00:10:38,440
SO WE ACTUALLY STUDY SYSTEMS ON
THE RUSSIAN SEGMENT, THE USOS

172
00:10:38,440 --> 00:10:44,240
SEGMENT, THE SOYUZ VEHICLE, AS
WELL AS SCIENCE AND ALL THE

173
00:10:44,240 --> 00:10:45,240
OTHER SKILLS.

174
00:10:45,240 --> 00:10:50,890
SO IT'S THREE YEARS, ABOUT, FROM
THE TIME YOU'RE ASSIGNED UNTIL

175
00:10:50,890 --> 00:10:54,550
YOU FLY, AND THEN YOU CAN'T BE
ASSIGNED UNTIL YOU'VE HAD AT

176
00:10:54,550 --> 00:10:59,370
LEAST TWO YEARS OF TRAINING AS
AN ASTRONAUT CANDIDATE.

177
00:10:59,370 --> 00:11:03,589
SO A MINIMUM OF FIVE YEARS
BEFORE YOU CAN FLY.

178
00:11:03,589 --> 00:11:06,990
IT'S A LOT OF TRAINING.

179
00:11:06,990 --> 00:11:07,990
>> THANK YOU.

180
00:11:07,990 --> 00:11:11,600
OUR NEXT QUESTION IS FROM FOURTH
GRADER BLAKE HOLBROOK.

181
00:11:11,600 --> 00:11:17,530
>> WHILE YOU ARE IN SPACE, WHAT
RESEARCH ARE YOU DOING?

182
00:11:17,530 --> 00:11:19,410
>> WELL, WE'RE
DOING A LOT.

183
00:11:19,410 --> 00:11:23,680
LIKE I MENTIONED, THERE'S OVER
300 EXPERIMENTS DURING THIS

184

00:11:23,680 --> 00:11:24,980
SIX-MONTH INCREMENT.

185
00:11:24,980 --> 00:11:33,450
SO WE'RE DOING BONE RESEARCH,
PROTEIN CRYSTALS, STEM CELLS,

186
00:11:33,450 --> 00:11:35,360
NEW ROBOTICS TECHNOLOGY.

187
00:11:35,360 --> 00:11:41,580
THERE'S JUST A HUGE LIST THAT WE
JUST CAN'T REMEMBER BECAUSE IT'S

188
00:11:41,580 --> 00:11:43,380
SO PACKED WITH SCIENCE.

189
00:11:43,380 --> 00:11:48,240
THERE'S EVEN AN EXPERIMENT -- OR
SET OF EXPERIMENTS CALLED NANO

190
00:11:48,240 --> 00:11:53,510
RACKS THAT'S TAKING SCIENTIFIC
EXPERIMENTS FROM HIGH SCHOOLS

191
00:11:53,510 --> 00:11:58,370
AND OTHER SCHOOLS AND FLYING
THEM IN A SMALLER RAPID

192
00:11:58,370 --> 00:12:03,260
DEVELOPMENT PROCESS SO WE CAN
GET MORE SCIENCE FROM SPANNING

193
00:12:03,260 --> 00:12:07,580
THE SPECTRUM ALL THE WAY FROM
HIGH SCHOOL ALL THE WAY TO

194
00:12:07,580 --> 00:12:08,990
ADVANCED RESEARCH.

195
00:12:08,990 --> 00:12:14,709
SO WE HAVE QUITE A BIT OF
SCIENCE GOING ON.

196
00:12:14,709 --> 00:12:15,709
>> THANK YOU.

197
00:12:15,709 --> 00:12:18,800
OUR NEXT QUESTION IS FROM FIRST
GRADER MADELEINE WHITLEY.

198
00:12:18,800 --> 00:12:22,870
>> WHAT IS THE COOLEST THING
ABOUT BEING IN SPACE, AND WHAT

199
00:12:22,870 --> 00:12:27,400
IS THE MOST DIFFICULT?

200
00:12:27,400 --> 00:12:31,399
>> WELL, MOST
DIFFICULT IS THAT MY WIFE IS NOT

201
00:12:31,399 --> 00:12:34,830
HERE BECAUSE I REALLY DIG HER.

202
00:12:34,830 --> 00:12:37,300
THE COOLEST -- I CAN'T DECIDE.

203
00:12:37,300 --> 00:12:40,240
IT'S EITHER THE FLOATING, YOU
KNOW, FLYING AND SPINNING ALL

204
00:12:40,240 --> 00:12:42,410
OVER THE PLACE, OR THE VIEW.

205
00:12:42,410 --> 00:12:46,870
BOTH OF THEM ARE PRETTY AWESOME.

206

00:12:46,870 --> 00:12:47,870
>> THANK YOU.

207
00:12:47,870 --> 00:12:50,610
OUR NEXT QUESTION IS FROM THIRD
GRADER MADDY ROBERTS.

208
00:12:50,610 --> 00:12:58,769
>> HOW ARE YOU ABLE TO TELL TIME
IN SPACE?

209
00:12:58,769 --> 00:13:02,709
>> WELL, WE HAVE
WATCHES, JUST LIKE ON EARTH, BUT

210
00:13:02,709 --> 00:13:06,730
SINCE WE'RE GOING AROUND IT,
SOMEBODY HAD TO PICK WHICH TIME

211
00:13:06,730 --> 00:13:11,630
ZONE WE WOULD USE, AND THEY
PICKED THE GREENWICH MEANTIME,

212
00:13:11,630 --> 00:13:14,860
WHICH IS BASICALLY THE TIME IT
IS IN LONDON.

213
00:13:14,860 --> 00:13:18,080
YOU KNOW HOW THERE'S TIME ZONES,
CENTRAL, AND YOU GUYS ARE IN

214
00:13:18,080 --> 00:13:19,080
EASTERN?

215
00:13:19,080 --> 00:13:23,630
WELL, THIS ONE IS THE TIME ZONE
IN LONDON.

216
00:13:23,630 --> 00:13:30,250
SO THAT'S THE TIME WE USE ALL

DAY LONG, AND WE GET UP AT 6:00

217
00:13:30,250 --> 00:13:34,930
ON LONDON TIME.

218
00:13:34,930 --> 00:13:35,930
>> THANK YOU.

219
00:13:35,930 --> 00:13:38,730
OUR NEXT QUESTION IS FROM
KINDERGARTNER NATHAN POLINNO.

220
00:13:38,730 --> 00:13:45,630
>> HOW DO YOU KNOW WHEN IT'S
TIME TO GO TO SLEEP WHEN YOU

221
00:13:45,630 --> 00:13:50,460
CAN'T TELL IF IT'S DAY OR NIGHT?

222
00:13:50,460 --> 00:13:53,700
>> WELL, THAT'S A
GOOD QUESTION BECAUSE EVERY 90

223
00:13:53,700 --> 00:13:56,400
MINUTES, IT'S A DAY AND A NIGHT.

224
00:13:56,400 --> 00:14:00,540
DO YOU EVER GO TO A HOTEL ROOM
AND THEY HAVE THOSE REALLY THICK

225
00:14:00,540 --> 00:14:02,029
CURTAINS ON THE WINDOWS?

226
00:14:02,029 --> 00:14:06,040
WELL, WE HAVE LITTLE SLEEPING
QUARTERS THAT BASICALLY YOU SHUT

227
00:14:06,040 --> 00:14:09,399
THE DOOR, AND IT'S THE SAME AS

GOING TO ONE OF THE HOTEL ROOMS

228
00:14:09,399 --> 00:14:10,850
WITH THE THICK CURTAINS.

229
00:14:10,850 --> 00:14:13,510
WE JUST CLOSE THE CURTAINS, AND
WE CAN'T TELL IF IT'S DAY OR

230
00:14:13,510 --> 00:14:14,620
NIGHT.

231
00:14:14,620 --> 00:14:19,199
SO THAT WORKS PRETTY GOOD.

232
00:14:19,199 --> 00:14:20,199
>> THANK YOU.

233
00:14:20,199 --> 00:14:22,579
OUR NEXT QUESTION IS FROM FIRST
GRADER JOSLIN ZAHN.

234
00:14:22,579 --> 00:14:28,339
>> WHEN YOU'RE NOT WORKING, WHAT
DO YOU LIKE TO DO FOR FUN ON THE

235
00:14:28,339 --> 00:14:31,980
SPACE STATION?

236
00:14:31,980 --> 00:14:35,959
>> WELL, THAT'S A
GOOD QUESTION.

237
00:14:35,959 --> 00:14:38,209
I LIKE PLAYING WITH MY FOOD.

238
00:14:38,209 --> 00:14:42,940
I LIKE TAKING PICTURES, AND I
LIKE FLYING AROUND AND TRYING TO

239
00:14:42,940 --> 00:14:50,730
DO SPINS AND FLIPS AND ALL SORTS
OF CRAZINESS.

240
00:14:50,730 --> 00:14:51,730
>> THANK YOU.

241
00:14:51,730 --> 00:14:54,770
OUR NEXT QUESTION IS FROM SECOND
GRADER ELIJAH PHEIFER.

242
00:14:54,770 --> 00:15:03,740
>> IS THERE ANYTHING YOU THOUGHT
YOU WERE NOT PREPARED FOR?

243
00:15:03,740 --> 00:15:07,180
>> WELL, THAT'S A
REALLY GOOD QUESTION.

244
00:15:07,180 --> 00:15:09,850
YOU KNOW, WE HAVE A LOT OF
TRAINING, AND I THINK THEY DID A

245
00:15:09,850 --> 00:15:12,260
GOOD JOB.

246
00:15:12,260 --> 00:15:16,260
SOME THINGS YOU JUST CAN'T TRAIN
FOR BECAUSE THINGS DON'T FLOAT

247
00:15:16,260 --> 00:15:19,840
ON EARTH WHILE WE'RE DOING OUR
TRAINING, BUT I'M VERY LUCKY

248
00:15:19,840 --> 00:15:24,740
BECAUSE I'M ON BOARD WITH TWO OF
THE MOST EXPERIENCED SPACE

249

00:15:24,740 --> 00:15:29,170
TRAVELERS IN HISTORY, PEGGY
WHITSON, AND FYODOR YURCHIKHIN.

250
00:15:29,170 --> 00:15:33,570
AND THEY ANSWER OR GUIDE ME
THROUGH THE OTHER STUFF THAT I

251
00:15:33,570 --> 00:15:39,240
DIDN'T QUITE GET TRAINED ON ON
EARTH.

252
00:15:39,240 --> 00:15:40,240
>> THANK YOU.

253
00:15:40,240 --> 00:15:42,809
OUR NEXT QUESTION IS FROM FIFTH
GRADER ALEXANDRA GODWIN.

254
00:15:42,809 --> 00:15:52,420
>> WHAT ARE YOU STUDYING ON
MICROGRAVITY AND BONES?

255
00:15:52,420 --> 00:15:55,800
>> WE DO A LOT.

256
00:15:55,800 --> 00:15:59,709
WE LOSE BONE MASS WHEN WE'RE IN
ORBIT.

257
00:15:59,709 --> 00:16:02,190
WE HAVE HELP FROM OUR MICE
FRIENDS.

258
00:16:02,190 --> 00:16:08,139
WE'VE USED STEM CELL CULTURES.

259
00:16:08,139 --> 00:16:12,120
OF COURSE, THE BIGGEST THING
THAT WE USE IS OURSELVES.

260
00:16:12,120 --> 00:16:16,600
WE GO THROUGH EXTENSIVE TESTING
BOTH BEFORE AND AFTER OUR

261
00:16:16,600 --> 00:16:17,600
MISSION.

262
00:16:17,600 --> 00:16:20,420
LIKE I MENTIONED, ALL OF OUR
EXERCISE IS PART OF THAT

263
00:16:20,420 --> 00:16:21,420
PROCESS.

264
00:16:21,420 --> 00:16:27,260
SOT THE BIGGEST THING THAT WE
USE IS US AND MAKING SURE SEEING

265
00:16:27,260 --> 00:16:34,180
HOW THE EFFECTS WERE ON OUR
BONES WHEN WE GET HOME.

266
00:16:34,180 --> 00:16:35,180
>> THANK YOU.

267
00:16:35,180 --> 00:16:37,279
WE ONLY HAVE A COUPLE OF MINUTES
LEFT, AND WE HAVE A CAN YOU FEEL

268
00:16:37,279 --> 00:16:38,279
QUESTIONS.

269
00:16:38,279 --> 00:16:40,730
OUR NEXT QUESTION IS FROM FIFTH
GRADER TJ TAYLOR.

270
00:16:40,730 --> 00:16:47,580
>> WHAT EMERGENCIES DO YOU HAVE

TO PREPARE FOR ON THE SPACE

271
00:16:47,580 --> 00:16:49,160
STATION?

272
00:16:49,160 --> 00:16:52,680
>> WELL, THE
BIGGEST ONES THAT WE NEED TO

273
00:16:52,680 --> 00:16:56,380
KNOW BECAUSE WE HAVE TO HAVE
THOSE RESPONSES MEMORIZED ARE IF

274
00:16:56,380 --> 00:16:59,881
WE HAVE A FIRE, IF WE HAVE A
DEPRESSURIZATION, LIKE THERE'S A

275
00:16:59,881 --> 00:17:03,850
HOLE IN THE STATION, OR IF WE
HAVE AN AMMONIA LEAK BECAUSE

276
00:17:03,850 --> 00:17:09,990
THAT STUFF IS REALLY NASTY.

277
00:17:09,990 --> 00:17:13,530
>> NEXT QUESTION IS FROM FOURTH
GRADER KARINA GRANGER.

278
00:17:13,530 --> 00:17:24,850
>> HOW DO YOUR STUDIES HELP THE
UNDERSTANDING OF FLUID BEHAVIOR?

279
00:17:24,850 --> 00:17:27,839
>> WELL, THAT
FLUIDIC STUDY IS LOOKING AT TWO

280
00:17:27,839 --> 00:17:28,839
THINGS.

281

00:17:28,839 --> 00:17:32,809
SLOSH IN A FUEL TANK FOR SPACE
VEHICLES.

282
00:17:32,809 --> 00:17:38,710
THE OTHER IS WAVE TURBULENCE,
WHICH WHAT WE'RE TRYING TO DO,

283
00:17:38,710 --> 00:17:41,890
BASICALLY, IS WHEN YOU HAVE A
VERY COMPLEX MODEL, LIKE WEATHER

284
00:17:41,890 --> 00:17:47,270
FORECASTING, IF THERE'S ONE ITEM
LIKE GRAVITY THAT'S REALLY BIG,

285
00:17:47,270 --> 00:17:49,950
IT'S HARD TO MODEL ALL THE OTHER
LITTLE THINGS.

286
00:17:49,950 --> 00:17:53,550
SO WE'RE MODELING A THING CALLED
CAPILLARY ACTION BY REMOVING

287
00:17:53,550 --> 00:17:56,169
GRAVITY AND STUDYING IT UP HERE.

288
00:17:56,169 --> 00:18:00,830
AND DOING SO WILL BUILD A MORE
COMPLETE MODEL TO BETTER

289
00:18:00,830 --> 00:18:02,770
FORECAST WEATHER ON EARTH.

290
00:18:02,770 --> 00:18:04,710
>> THANK YOU, JACK.

291
00:18:04,710 --> 00:18:10,600
I'M GOING TO TURN IT OVER TO
ALLISON, THE VICE PRESIDENT OF

292
00:18:10,600 --> 00:18:11,600
LEEDS.

293
00:18:11,600 --> 00:18:13,900
>> ON BEHALF OF THE STUDENTS AND
STAFF HERE AT LEEDS ELEMENTARY

294
00:18:13,900 --> 00:18:17,750
SCHOOL, SUPERINTENDENT OF
SCHOOLS, AND THE LEADERSHIP

295
00:18:17,750 --> 00:18:24,120
TEAM, COUNCIL EXECUTIVE, ATK
MISSILE DEFENSE AND CONTROLS, WE

296
00:18:24,120 --> 00:18:27,200
WANT TO THANK YOU COLONEL
FISCHER FOR TAKING THE TIME TO

297
00:18:27,200 --> 00:18:31,140
TALK TO US TODAY AND HELPING US
LEARN A LITTLE BIT MORE ABOUT

298
00:18:31,140 --> 00:18:33,750
YOUR RESEARCH ON THE SPACE
STATION.

299
00:18:33,750 --> 00:18:37,970
OVER THE PAST FEW MONTHS, YOU'VE
BECOME A WELL-KNOWN NAME HERE AT

300
00:18:37,970 --> 00:18:41,520
LEEDS ELEMENTARY SCHOOL, AND OUR
STUDENTS EXCITEDLY CALL YOU 2

301
00:18:41,520 --> 00:18:42,520
FISH.

302

00:18:42,520 --> 00:18:46,230
WALT DISNEY ONCE SAID IF YOU
DREAM IT, YOU CAN DO IT.

303
00:18:46,230 --> 00:18:55,350
WE HOPE TO SOME DAY SEE SOME OF
THESE FANTASTIC STUDENTS IN

304
00:18:55,350 --> 00:18:56,350
SPACE.

305
00:18:56,350 --> 00:18:58,240
HAVE A GREAT DAY.

306
00:18:58,240 --> 00:19:00,740
>> WELL, HAVE A
GREAT DAY.

307
00:19:00,740 --> 00:19:03,510
I WILL GIVE YOU A SIDEWAYS SPIN
BEFORE YOU GO.

308
00:19:03,510 --> 00:19:07,880
I DARE YOU ALL TO DREAM, AND I
HOPE YOU HAVE A GREAT DAY.

309
00:19:07,880 --> 00:19:12,790
>> MISSION CONTROL HOUSTON:
STATION, THIS IS HOUSTON, THAT

310
00:19:12,790 --> 00:19:14,549
CONCLUDES THE EVENT.

311
00:19:14,549 --> 00:19:18,460
>> THANK YOU, ALL PARTICIPANTS.