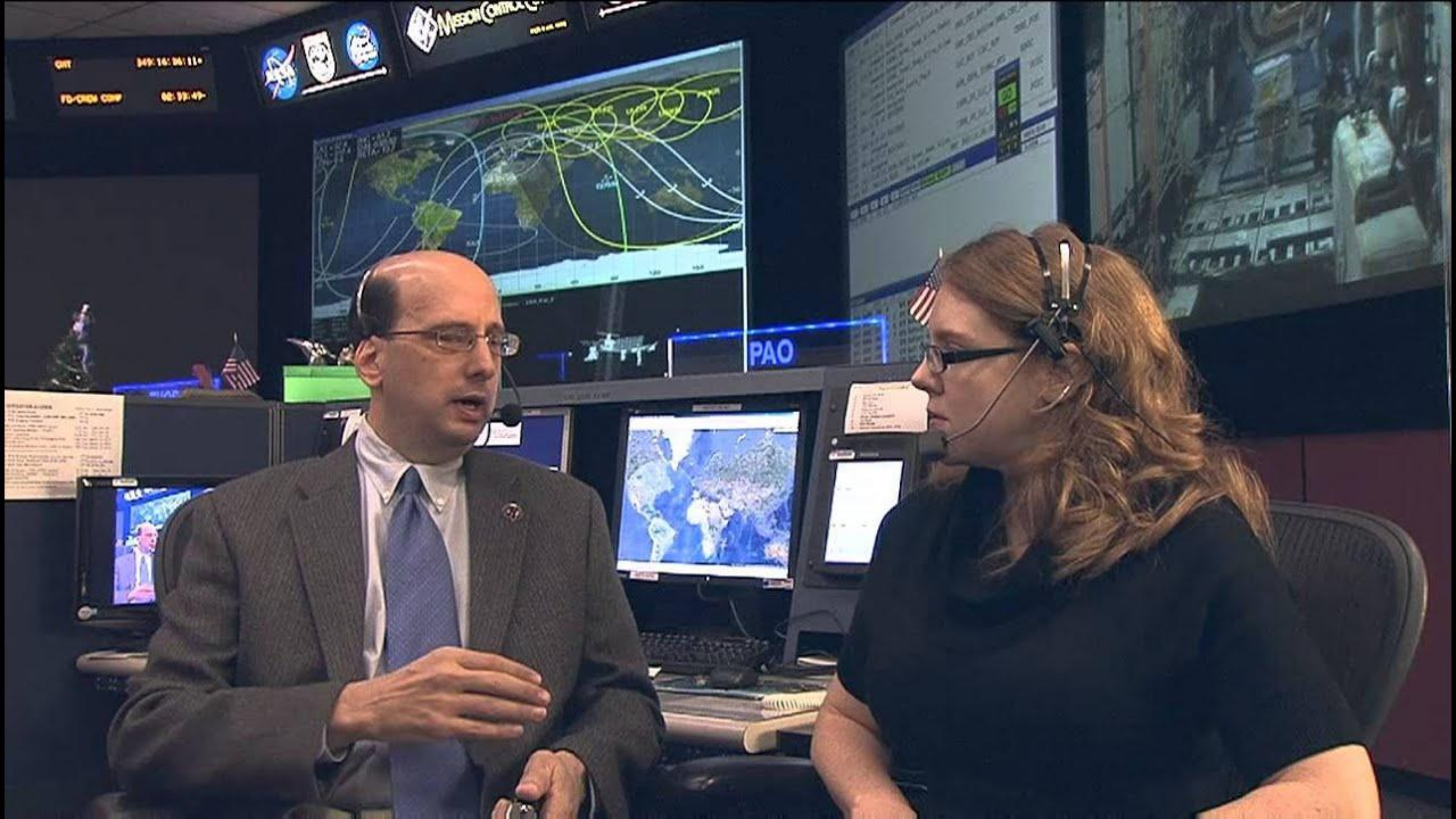
PAO

1
00:00:00,856 --> 00:00:02,046
>> Brandi Dean: Today,
we have with us here

2
00:00:02,046 --> 00:00:04,726
in the mission control a
special guest to talk with us

3
00:00:04,726 --> 00:00:07,846
about a new book that's coming
out for students, or children,

4
00:00:08,026 --> 00:00:10,516
to learn a little bit more
about space nutrition.

5
00:00:10,516 --> 00:00:12,796
And that's actually the
title of the book, I believe.

6
00:00:12,796 --> 00:00:15,236
This is Scott Smith,
he is manager

7
00:00:15,236 --> 00:00:19,706
for nutritional biochemistry
here at Johnson Space Center,

8
00:00:19,706 --> 00:00:21,746
and he's going to tell us
a little bit about his book

9
00:00:21,746 --> 00:00:22,416
that he's been working on.

10
00:00:22,416 --> 00:00:23,546
Thanks so much for
joining us, Scott.

11

00:00:23,706 --> 00:00:24,086
>> Scott Smith: Sure thing.

12
00:00:24,086 --> 00:00:24,586
Thanks, Brandy.

13
00:00:25,046 --> 00:00:27,876
>> Brandi Dean: So, okay, tell
us a little bit -- it doesn't --

14
00:00:28,156 --> 00:00:30,636
it doesn't seem like it's
necessarily something you'd

15
00:00:30,636 --> 00:00:32,536
expect from NASA to
have a children's book.

16
00:00:32,536 --> 00:00:34,136
So, how did -- how
did that come about?

17
00:00:34,956 --> 00:00:36,996
>> Scott Smith: Well, this
whole effort -- you know, I --

18
00:00:37,106 --> 00:00:40,066
as I said, I'm involved with
the nutritional biochemistry lab

19
00:00:40,556 --> 00:00:41,886
at the Johnson Space Center.

20
00:00:41,886 --> 00:00:42,656
I'm a scientist.

21
00:00:42,656 --> 00:00:43,926
We do scientific work.

22

00:00:43,926 --> 00:00:45,966
We do experiments on the ground.

23
00:00:45,966 --> 00:00:47,436
We do experiments on
the space station.

24
00:00:47,876 --> 00:00:50,756
And that's our full-time job.

25
00:00:51,176 --> 00:00:53,216
We're always looking
for ways to reach

26
00:00:53,216 --> 00:00:55,666
out to help people better
understand what we do,

27
00:00:56,266 --> 00:01:01,046
and with this -- the book
that came out recently began

28
00:01:01,426 --> 00:01:04,336
with an effort back in 2001.

29
00:01:04,756 --> 00:01:06,546
And what we were doing
was, we were gearing

30
00:01:06,546 --> 00:01:09,396
up for a space flight
experiment on the shuttle.

31
00:01:09,936 --> 00:01:12,826
And what we had wanted, at the
time, is we were trying to come

32
00:01:12,826 --> 00:01:18,206
up with a way to engage
kids in that experience.

33
00:01:18,206 --> 00:01:21,546
And there were a number of
things we wanted to do, but,

34
00:01:21,546 --> 00:01:24,036
you know, we've sort of had
the impression that some folks

35
00:01:24,036 --> 00:01:27,306
out there had the idea that --
you know, that the crew showed

36
00:01:27,306 --> 00:01:28,636
up the week before
a shuttle flight

37
00:01:28,636 --> 00:01:29,956
and decided what they
were going to do,

38
00:01:29,956 --> 00:01:31,916
and that's where those
experiments came from.

39
00:01:31,916 --> 00:01:32,616
>> Brandi Dean: And that's
now how it works [chuckles]?

40
00:01:32,616 --> 00:01:34,896
>> Scott Smith: And that's
usually not how it works.

41
00:01:34,896 --> 00:01:37,026
So what we wanted
to do was, again,

42
00:01:37,026 --> 00:01:41,606
try to highlight our
project and bring a group --

43
00:01:41,666 --> 00:01:45,256
or groups of kids into it to
give them an idea of how long

44
00:01:45,256 --> 00:01:47,996
that process takes, talk
about the scientific method,

45
00:01:47,996 --> 00:01:52,626
talk about proposals, talk about
experiment, you know, definition

46
00:01:52,626 --> 00:01:55,566
and how things get
laid out, training

47
00:01:55,566 --> 00:01:59,016
and literally the breadth
of the team that it takes

48
00:01:59,016 --> 00:02:01,106
to pull off a space
flight experiment.

49
00:02:01,876 --> 00:02:04,526
And the way we -- the way
we established that, again,

50
00:02:04,526 --> 00:02:07,806
back in late 2001,
was with a newsletter.

51
00:02:08,026 --> 00:02:10,046
A monthly newsletter
that we generated for,

52
00:02:10,596 --> 00:02:12,346
what I usually call,
upper-elementary,

53
00:02:12,346 --> 00:02:14,016
intermediate school, students.

54
00:02:14,016 --> 00:02:14,256
>> Brandi Dean: Okay.

55
00:02:14,486 --> 00:02:15,646
>> Scott Smith: And every month,

56
00:02:15,646 --> 00:02:18,436
we would highlight a different
aspect of the experiment,

57
00:02:18,546 --> 00:02:20,346
either the hardware
we were preparing,

58
00:02:20,726 --> 00:02:23,066
the scientific process
the study itself,

59
00:02:23,116 --> 00:02:28,046
human physiology during space
flight -- different things.

60
00:02:28,046 --> 00:02:30,186
And we had a great
team of folks.

61
00:02:30,596 --> 00:02:32,186
One of the co-authors
on the book,

62
00:02:32,186 --> 00:02:33,676
a woman named Janis
Davis-Street,

63
00:02:33,826 --> 00:02:35,716

was here at the time.

64
00:02:35,716 --> 00:02:37,656
And she and I worked
on this a lot.

65
00:02:37,656 --> 00:02:39,606
And this, again, was
one of our -- it was --

66
00:02:39,606 --> 00:02:40,936
this was a spare-time activity.

67
00:02:40,936 --> 00:02:42,736
This was not part of our job.

68
00:02:42,736 --> 00:02:45,596
We did a lot of this at
night, on the weekend.

69
00:02:45,596 --> 00:02:49,306
And it -- I mean, in the
beginning, it was clip-art.

70
00:02:49,306 --> 00:02:50,296
It looked kind of cheesy.

71
00:02:50,676 --> 00:02:55,046
But we had a lot of fun, and it
had a lot of impact on the kids.

72
00:02:55,666 --> 00:02:59,496
What we've done since then
is, it's grown a little bit.

73
00:02:59,496 --> 00:03:02,786
And NASA, at one point,
actually allowed one

74

00:03:02,786 --> 00:03:05,306
of the graphic artists here,
a guy named Marco Zambetti,

75
00:03:05,816 --> 00:03:07,356
to do illustrations for us.

76
00:03:07,926 --> 00:03:11,276
And he developed a cast,
if you will, of four kids,

77
00:03:11,826 --> 00:03:14,706
and would develop
imagery to go along

78
00:03:14,706 --> 00:03:15,716
with each of the newsletters.

79
00:03:16,236 --> 00:03:17,606
So, we did that for
several years.

80
00:03:17,606 --> 00:03:19,056
Well, one of the
teachers we worked

81
00:03:19,056 --> 00:03:20,656
with was a woman
named Lisa Neasbitt.

82
00:03:21,166 --> 00:03:24,076
And she was a classroom
teacher who was receiving these

83
00:03:24,076 --> 00:03:25,686
and would incorporate
them into her classroom.

84
00:03:26,266 --> 00:03:31,696
And eventually, as fate would

have it, a position opened

85
00:03:31,696 --> 00:03:34,336
up here at NASA in the
educational office, and she came

86
00:03:34,336 --> 00:03:37,176
to work here and
continued her work.

87
00:03:37,636 --> 00:03:40,706
But it was almost, from an
education point of view,

88
00:03:41,256 --> 00:03:44,316
looking over our
shoulder at the content

89
00:03:44,386 --> 00:03:47,906
to help guide it towards
the school and classrooms

90
00:03:47,906 --> 00:03:48,946
and guided for teachers.

91
00:03:48,946 --> 00:03:51,726
And she did some great
work with teacher guides

92
00:03:51,726 --> 00:03:52,716
and those kinds of things.

93
00:03:52,716 --> 00:03:56,506
Somewhere along the way, Dr.
Sara Zwart joined our team,

94
00:03:56,506 --> 00:04:00,826
another nutrition scientist, and
helped, again, with the content.

95
00:04:01,406 --> 00:04:05,016
And the newsletter, over the
years, I guess back in 2006,

96
00:04:05,016 --> 00:04:08,016
2007, waned a little bit.

97
00:04:08,286 --> 00:04:10,476
And what we decided to do,
I guess about a year ago,

98
00:04:10,476 --> 00:04:15,546
was to repackage and reformulate
those newsletters into a book.

99
00:04:16,026 --> 00:04:16,146
>> Brandi Dean: Okay.

100
00:04:16,146 --> 00:04:17,646
>> Scott Smith: And
we stepped back

101
00:04:17,646 --> 00:04:20,206
and essentially started again.

102
00:04:20,206 --> 00:04:24,076
And Marco drew new imagery,
and we go through everything

103
00:04:24,076 --> 00:04:27,246
in the book, from the
history of space flight.

104
00:04:27,246 --> 00:04:28,776
We talk about the
different space programs.

105
00:04:28,776 --> 00:04:31,786
We talk about the

evolution of space food.

106
00:04:32,186 --> 00:04:35,236
We talk about things like
the scientific method

107
00:04:35,236 --> 00:04:36,826
and how you do experiments.

108
00:04:36,986 --> 00:04:39,276
We talk about two
different aspects

109
00:04:39,276 --> 00:04:40,206
of what we do in the lab.

110
00:04:40,676 --> 00:04:43,646
We talk about things
like different nutrients,

111
00:04:43,646 --> 00:04:45,216
so we'll have an
issue on vitamin D,

112
00:04:45,556 --> 00:04:47,876
or an issue on antioxidants,
or an issue on calcium,

113
00:04:48,316 --> 00:04:50,926
and it's sectioned in
the book accordingly

114
00:04:51,306 --> 00:04:52,796
to highlight those areas.

115
00:04:53,316 --> 00:04:57,676
And then we also talk about
the different research

116

00:04:57,676 --> 00:04:58,076
that we're doing.

117
00:04:58,076 --> 00:05:00,716
So, we'll highlight
experiments that we're doing,

118
00:05:00,716 --> 00:05:02,486
literally right now,
that Kevin Ford is doing

119
00:05:02,486 --> 00:05:03,486
on board space station --

120
00:05:03,906 --> 00:05:06,086
the procedures, the
hardware and everything.

121
00:05:06,316 --> 00:05:06,656
>> Brandi Dean: Okay.

122
00:05:06,736 --> 00:05:09,026
>> Scott Smith: And then, we
also point to the future of,

123
00:05:09,026 --> 00:05:10,386
where's this going,
what are we learning,

124
00:05:10,386 --> 00:05:13,036
and what are the
implications in the future.

125
00:05:13,446 --> 00:05:14,166
>> Brandi Dean: So, what is --

126
00:05:14,256 --> 00:05:16,666
what is your idea of how
this book will be used?

127
00:05:16,666 --> 00:05:20,656
Is it for students to read, you
know, or for teachers to use

128
00:05:20,656 --> 00:05:22,626
in their classroom, or...

129
00:05:22,626 --> 00:05:23,196
>> Scott Smith: Both.

130
00:05:23,196 --> 00:05:25,366
I mean, our -- in my --

131
00:05:25,366 --> 00:05:29,916
in my head, I look at this as
something that, again, a fifth-,

132
00:05:30,086 --> 00:05:32,416
sixth-, seventh-, eighth-grader
might want to pick up and read

133
00:05:32,696 --> 00:05:34,786
to learn more about
what's going on in space.

134
00:05:34,866 --> 00:05:36,386
A teacher could use this,

135
00:05:36,386 --> 00:05:38,446
and there's actually a teacher's
guide in the back of the book,

136
00:05:38,916 --> 00:05:43,936
which has tracks to
education standards.

137
00:05:44,246 --> 00:05:45,976
It has suggestions for
how to incorporate this

138
00:05:45,976 --> 00:05:48,306
in the classroom, how
to adapt the material

139
00:05:48,306 --> 00:05:49,396
to different elements.

140
00:05:49,396 --> 00:05:53,646
So, from an educator point of
view, there's clear hook there

141
00:05:53,646 --> 00:05:56,566
that they can use, but
again, you know, we just --

142
00:05:56,716 --> 00:05:59,586
we're looking for people to
use in any way they want.

143
00:05:59,646 --> 00:05:59,966
>> Brandi Dean: Sure.

144
00:06:00,106 --> 00:06:02,606
So, thinking about teachers,
you know, there's so much

145
00:06:02,606 --> 00:06:03,986
that kids have to learn.

146
00:06:03,986 --> 00:06:05,596
There's so much you have to get
done in the classroom today.

147
00:06:05,596 --> 00:06:08,506
What would be the value of
using something like this?

148
00:06:08,506 --> 00:06:10,976

Why is this of interest
for kids?

149
00:06:11,866 --> 00:06:14,166
>> Scott Smith: Well, there's
two different facets to that.

150
00:06:14,166 --> 00:06:16,536
One, you know, I
always say that we --

151
00:06:16,596 --> 00:06:18,706
kids are interested in space.

152
00:06:18,956 --> 00:06:23,286
And this gives them a good
handle on one focused area

153
00:06:23,286 --> 00:06:26,626
of space flight, an area
that there's, perhaps,

154
00:06:26,626 --> 00:06:27,946
not a lot of information
out there on.

155
00:06:27,946 --> 00:06:31,226
And so, I think we engage
kids based on the topic.

156
00:06:33,166 --> 00:06:37,296
What we can also do,
though, is, at the same time,

157
00:06:37,296 --> 00:06:38,396
you're getting kids to read.

158
00:06:38,756 --> 00:06:41,256
There's math activities in
there that they can work with.

159
00:06:41,736 --> 00:06:43,276
You're teaching them
about science.

160
00:06:43,276 --> 00:06:44,436
You're teaching them
about health.

161
00:06:44,436 --> 00:06:47,226
So, there's a lot of
different spinoff applications.

162
00:06:47,606 --> 00:06:51,686
And again, from an -- from
an educator point of view,

163
00:06:51,686 --> 00:06:53,446
there's many things that
you can do the same way.

164
00:06:53,446 --> 00:06:56,456
The teachers can use this as
a way to get kids to write.

165
00:06:56,726 --> 00:06:58,936
You know, they can say,
here, read this section

166
00:06:59,346 --> 00:07:01,556
and then go off and write
what it means to you,

167
00:07:01,556 --> 00:07:04,716
or write your version of this,
or design a food system that --

168
00:07:04,916 --> 00:07:07,376
you know, that you could
use in your space craft.

169
00:07:07,526 --> 00:07:10,096
We've seen group projects
that teachers have done

170
00:07:10,496 --> 00:07:11,576
where they've had teachers --

171
00:07:11,576 --> 00:07:14,416
where they've had kids build
different space craft --

172
00:07:14,416 --> 00:07:16,716
a craft to go back to the moon,
or a craft to go off to Mars.

173
00:07:16,716 --> 00:07:18,606
So, there's a lot
of different --

174
00:07:18,976 --> 00:07:23,556
there's many ways that you could
apply this into the classroom.

175
00:07:24,186 --> 00:07:25,096
>> Brandi Dean: Well, I guess

176
00:07:25,096 --> 00:07:27,316
if you've been basically
doing a version

177
00:07:27,316 --> 00:07:29,356
of this 2001, I think you said?

178
00:07:29,356 --> 00:07:29,826
>> Scott Smith: That's correct.

179
00:07:30,096 --> 00:07:31,696
>> Brandi Dean: You must

have gotten some indication

180
00:07:31,696 --> 00:07:35,876
that people were enjoying it,
that it was being used by a lot

181
00:07:35,876 --> 00:07:40,146
of teachers, and can you give
me an idea of what you've seen?

182
00:07:40,146 --> 00:07:40,776
>> Scott Smith: The
-- absolutely.

183
00:07:40,776 --> 00:07:43,066
Again, we've been doing
this for a long time.

184
00:07:43,066 --> 00:07:45,116
And the feedback we've
gotten has been phenomenal.

185
00:07:45,116 --> 00:07:48,266
And we -- in our heyday, I
think we were sending out --

186
00:07:48,366 --> 00:07:51,366
because we posted
them on the Internet.

187
00:07:51,366 --> 00:07:55,396
They're still posted on the
Internet, on NASA's website.

188
00:07:55,836 --> 00:07:58,856
But originally, we were
mailing out hard copies,

189
00:07:58,856 --> 00:08:00,256
and I think we were

sending out about 8,

190
00:08:00,256 --> 00:08:02,576
900 a month in our heyday.

191
00:08:02,576 --> 00:08:05,216
And the response we were
getting from teachers,

192
00:08:05,216 --> 00:08:08,556
the response we were getting
from kids, was just outstanding.

193
00:08:08,846 --> 00:08:09,206
>> Brandi Dean: Okay.

194
00:08:10,046 --> 00:08:12,066
And I think we've got
here on the screen,

195
00:08:12,066 --> 00:08:13,656
you can see the website
where you can go

196
00:08:13,656 --> 00:08:15,236
and take a look at the book.

197
00:08:15,236 --> 00:08:16,866
It's available in a
couple different forms.

198
00:08:16,866 --> 00:08:18,806
You can actually purchase it,

199
00:08:18,806 --> 00:08:21,306
or get for free via
e-book, is that right?

200
00:08:21,306 --> 00:08:22,636

>> Scott Smith: Well,
actually, on the --

201
00:08:22,636 --> 00:08:24,286
the website has several things.

202
00:08:24,286 --> 00:08:26,266
That one link will
take you to our main --

203
00:08:26,426 --> 00:08:28,806
the main page that has our
education outreach material

204
00:08:31,606 --> 00:08:29,136
on there.

205
00:08:32,006 --> 00:08:34,176
And then there's links
to two forms of the book.

206
00:08:34,206 --> 00:08:35,906
There's a PDF file
of the book...

207
00:08:35,906 --> 00:08:36,236
>> Brandi Dean: PDF, okay.

208
00:08:36,426 --> 00:08:37,616
>> Scott Smith: ...that
you can downlink for free.

209
00:08:38,186 --> 00:08:40,656
There's also, if you have
an iPad, there's a --

210
00:08:40,656 --> 00:08:43,646
there's an iBook version
of it that is on iTunes.

211
00:08:44,026 --> 00:08:45,086
And that is free as well.

212
00:08:45,226 --> 00:08:45,496
>> Brandi Dean: Okay.

213
00:08:45,496 --> 00:08:47,016
>> Scott Smith: So,
there's a link on our site

214
00:08:47,016 --> 00:08:48,706
that will take you to
iTunes, where you can pull

215
00:08:48,706 --> 00:08:50,556
that down if you have an iPad.

216
00:08:50,556 --> 00:08:51,916
And again, it's all free.

217
00:08:52,236 --> 00:08:52,746
>> Brandi Dean: Okay, so,

218
00:08:52,746 --> 00:08:54,896
a couple of different ways
you might take a look at that

219
00:08:54,896 --> 00:08:57,866
and see if it's something that
you, or maybe a student you have

220
00:08:57,866 --> 00:08:59,966
to get a Christmas gift
for, might be interested in.

221
00:09:00,336 --> 00:09:04,076
But let me ask you, since we've
got you here, what are some

222
00:09:04,076 --> 00:09:06,416
of the most interesting
experiments that are going

223
00:09:06,416 --> 00:09:07,406
on in space, maybe some

224
00:09:07,406 --> 00:09:10,496
that Commander Ford's
working on this expedition?

225
00:09:10,896 --> 00:09:11,276
>> Scott Smith: Well, we have --

226
00:09:11,276 --> 00:09:13,816
we have two experiments
going on these days.

227
00:09:13,816 --> 00:09:16,366
Commander Ford is
participating in our --

228
00:09:16,406 --> 00:09:17,716
what we call our
nutrition experiment.

229
00:09:18,226 --> 00:09:22,066
And what he does five
times over the course

230
00:09:22,066 --> 00:09:24,696
of his six-month mission,
he'll collect blood

231
00:09:24,696 --> 00:09:26,176
and urine samples for us.

232
00:09:26,236 --> 00:09:28,436
Those samples go in the freezer,

and then they'll come home

233
00:09:28,886 --> 00:09:31,826
on the next Dragon
flight, hopefully.

234
00:09:31,956 --> 00:09:35,686
And what we're learning
from those is many things,

235
00:09:35,686 --> 00:09:38,436
but one of the things we're
learning is, in essence,

236
00:09:38,436 --> 00:09:39,856
how the body adapts
to space flight.

237
00:09:40,426 --> 00:09:41,986
And one of our recent
studies that we --

238
00:09:41,986 --> 00:09:44,636
that we published this
past year was looking

239
00:09:44,636 --> 00:09:46,556
at the effect of
exercise on bone.

240
00:09:47,046 --> 00:09:49,016
And what we were able
to show is that the new,

241
00:09:49,016 --> 00:09:51,486
what we call the
resistance exercise device,

242
00:09:51,486 --> 00:09:53,796
the weightlifting

machine, actually helps

243
00:09:53,796 --> 00:09:55,666
to protect bone in space flight.

244
00:09:55,666 --> 00:09:58,266
>> Brandi Dean: And that's as
opposed to the exercise bike

245
00:09:58,266 --> 00:09:59,376
and the treadmill,
that sort of thing?

246
00:09:59,376 --> 00:09:59,996
>> Scott Smith: That's correct.

247
00:09:59,996 --> 00:10:02,786
The bike and the treadmill are
what we call aerobic devices.

248
00:10:02,986 --> 00:10:05,426
The resistance exercise
device is essentially a way

249
00:10:05,426 --> 00:10:08,116
for astronauts to lift
weights during flight.

250
00:10:08,756 --> 00:10:13,026
And while the bike and the
treadmill are great for muscles

251
00:10:13,026 --> 00:10:15,966
and your heart, what we've
known for some time now is

252
00:10:15,966 --> 00:10:18,956
that the bones -- to maintain
bone health during space flight,

253
00:10:18,956 --> 00:10:22,036
you really need to lift
weights, which, you know,

254
00:10:22,036 --> 00:10:22,916
weightless environment.

255
00:10:22,916 --> 00:10:24,206
It becomes very tough.

256
00:10:24,286 --> 00:10:26,826
But what we've shown,
again, recently,

257
00:10:27,216 --> 00:10:29,496
is that the resistance
exercise device we have

258
00:10:29,496 --> 00:10:32,706
on station right now works
the crew members hard enough

259
00:10:32,706 --> 00:10:34,006
that they can maintain
their bone.

260
00:10:34,006 --> 00:10:35,846
So, that was sort
of an exciting thing

261
00:10:35,846 --> 00:10:36,996
that we just published recently.

262
00:10:36,996 --> 00:10:37,556
>> Brandi Dean: Absolutely.

263
00:10:37,556 --> 00:10:39,176
So, is that included
in the book?

264
00:10:39,176 --> 00:10:40,166
Or does it go that far?

265
00:10:40,426 --> 00:10:41,266
>> Scott Smith: Unfortunately,
the book --

266
00:10:41,266 --> 00:10:42,106
the book ended just before that.

267
00:10:42,106 --> 00:10:42,756
>> Brandi Dean: Just
before that?

268
00:10:42,756 --> 00:10:43,776
>> Scott Smith: We were
talking about that recently,

269
00:10:43,776 --> 00:10:45,366
that we need -- there's a -
there's a couple things we need

270
00:10:45,366 --> 00:10:46,396
to update in the book.

271
00:10:46,396 --> 00:10:48,396
I guess that'll be
the second edition.

272
00:10:48,516 --> 00:10:49,616
>> Brandi Dean: That
sounds good.

273
00:10:49,956 --> 00:10:52,126
Let me ask you, though, how do
you take something like that

274
00:10:52,126 --> 00:10:54,736

and turn it into something
of interest to children?

275
00:10:55,696 --> 00:10:59,176
>> Scott Smith: Well, you know,
everything that we study --

276
00:10:59,206 --> 00:11:01,416
you know, when we talk
about bone in particular,

277
00:11:01,856 --> 00:11:05,356
one of the obvious ties with
bone health and the astronauts

278
00:11:05,356 --> 00:11:07,686
and on Earth, is osteoporosis.

279
00:11:07,816 --> 00:11:09,606
And osteoporosis,
obviously, is a disease

280
00:11:09,606 --> 00:11:10,966
that affects elderly
individuals.

281
00:11:11,476 --> 00:11:14,486
But when you talk about
preventing osteoporosis,

282
00:11:14,536 --> 00:11:17,686
the point of prevention of
osteoporosis is in kids.

283
00:11:18,106 --> 00:11:21,086
That what we need is kids to
eat better when they're younger.

284
00:11:21,086 --> 00:11:23,476
Because you're -- by the

time you reach about 20,

285
00:11:23,516 --> 00:11:26,346
25 years of age, your
skeleton is done,

286
00:11:26,816 --> 00:11:28,276
that you have nothing
left to do but lose it.

287
00:11:28,446 --> 00:11:33,236
So, the trick is to try to get
as much skeleton as you can.

288
00:11:33,696 --> 00:11:35,946
And the way to do that is to
eat better when you're a kid --

289
00:11:35,946 --> 00:11:37,876
when you're 12 to 15 to 18 --

290
00:11:38,256 --> 00:11:42,566
eating well, getting lots
of calcium, getting lots

291
00:11:42,566 --> 00:11:43,736
of protein, getting lots

292
00:11:43,736 --> 00:11:46,536
of vitamin D is critical
to establish health.

293
00:11:46,536 --> 00:11:49,346
So, what we try to do
is, we talk not only

294
00:11:49,346 --> 00:11:52,796
about the crew's exercising
in flight and what that means

295
00:11:52,796 --> 00:11:56,116
for them, but how that -- how
that affects the kids as well.

296
00:11:56,686 --> 00:11:58,176
>> Brandi Dean: Okay, so it
might also be a good tool

297
00:11:58,176 --> 00:12:00,866
for moms trying to get
their children to eat right.