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WISCONSIN WHITEWATER
WV

1
00:00:05,430 --> 00:00:03,429
imagine being a high school student and

2
00:00:07,670 --> 00:00:05,440
getting to design and build your own

3
00:00:10,070 --> 00:00:07,680
experiment then getting to experience

4
00:00:11,830 --> 00:00:10,080
what it's like to float in zero g by

5
00:00:13,350 --> 00:00:11,840
testing that experiment well that's

6
00:00:15,270 --> 00:00:13,360
exactly what some high school students

7
00:00:16,950 --> 00:00:15,280
are getting the opportunity to do as

8
00:00:21,189 --> 00:00:16,960
part of the high schools united with

9
00:00:23,830 --> 00:00:21,199
nasa to create hardware or hunch extreme

10
00:00:25,589 --> 00:00:23,840
one of the engineers wanted to know if

11
00:00:27,109 --> 00:00:25,599
students could

12
00:00:29,830 --> 00:00:27,119
build experiments because of the

13
00:00:32,549 --> 00:00:29,840

national lab was set up and a third of

14

00:00:34,790 --> 00:00:32,559

the experiments were

15

00:00:36,150 --> 00:00:34,800

supposed to deal in education

16

00:00:38,790 --> 00:00:36,160

and

17

00:00:41,590 --> 00:00:38,800

usually that is with universities

18

00:00:43,030 --> 00:00:41,600

but hunch involved high schools and so

19

00:00:45,110 --> 00:00:43,040

they wanted to see if high school

20

00:00:47,029 --> 00:00:45,120

students and they've been really

21

00:00:49,350 --> 00:00:47,039

successful in um that's what i was going

22

00:00:51,430 --> 00:00:49,360

to say since 2009 what let's talk about

23

00:00:54,069 --> 00:00:51,440

some of the successes so

24

00:00:57,990 --> 00:00:54,079

um we have right now

25

00:01:00,389 --> 00:00:58,000

13 schools that participated last year

26

00:01:03,270 --> 00:01:00,399

flew on the zero gravity plane out of

27

00:01:05,590 --> 00:01:03,280

ellington field and

28

00:01:08,550 --> 00:01:05,600

of them

29

00:01:11,670 --> 00:01:08,560

one school was selected this year and

30

00:01:14,469 --> 00:01:11,680

two in previous years to

31

00:01:15,350 --> 00:01:14,479

go to the international space station

32

00:01:17,429 --> 00:01:15,360

however

33

00:01:18,870 --> 00:01:17,439

none have reached that

34

00:01:21,429 --> 00:01:18,880

spot yet

35

00:01:25,030 --> 00:01:21,439

all three schools are working on it but

36

00:01:26,870 --> 00:01:25,040

we have yet to send one to the iss

37

00:01:29,030 --> 00:01:26,880

but it's a learning process right of the

38

00:01:31,109 --> 00:01:29,040

whole the whole thing the procedures

39

00:01:33,350 --> 00:01:31,119

working with nasa it's all a learning

40

00:01:37,030 --> 00:01:33,360

experience for these kids it's a huge

41

00:01:39,670 --> 00:01:37,040

learning experience and and the schools

42

00:01:42,630 --> 00:01:39,680

that have been who have been selected

43

00:01:45,190 --> 00:01:42,640

have actually been working for

44

00:01:47,429 --> 00:01:45,200

two of them for five years so every year

45

00:01:49,830 --> 00:01:47,439

they fly on the zero gravity plane they

46

00:01:53,109 --> 00:01:49,840

improve their experiment the students

47

00:01:56,870 --> 00:01:53,119

often change who are working on it um

48

00:01:58,950 --> 00:01:56,880

but the teacher doesn't and

49

00:02:01,350 --> 00:01:58,960

every year they learn

50

00:02:03,910 --> 00:02:01,360

to meet those constraints

51

00:02:05,190 --> 00:02:03,920

and uh better and

52

00:02:07,830 --> 00:02:05,200

eventually

53

00:02:10,469 --> 00:02:07,840

they hopefully will get to fly to the

54

00:02:12,710 --> 00:02:10,479

iss that is their ultimate goal what is

55

00:02:15,430 --> 00:02:12,720

your ultimate goal with this program

56

00:02:18,150 --> 00:02:15,440

it's a win-win situation so it's a win

57

00:02:21,110 --> 00:02:18,160

for nasa because these students are

58

00:02:22,390 --> 00:02:21,120

doing important research for us

59

00:02:24,630 --> 00:02:22,400

we don't tell them

60

00:02:27,670 --> 00:02:24,640

what to do because my ultimate goal is

61

00:02:29,589 --> 00:02:27,680

to get the students to be

62

00:02:32,470 --> 00:02:29,599

involved in their experiment to own

63

00:02:35,670 --> 00:02:32,480

their experiment to be the

64

00:02:37,030 --> 00:02:35,680

the researchers in their experiment

65

00:02:39,910 --> 00:02:37,040

and to

66

00:02:43,030 --> 00:02:39,920

teachers as the facilitator so i want to

67

00:02:44,550 --> 00:02:43,040

my ultimate goal is to promote stem

68

00:02:47,589 --> 00:02:44,560

education but

69

00:02:50,630 --> 00:02:47,599

real life hands-on stem education i want

70

00:02:54,470 --> 00:02:50,640

them to apply their knowledge and use it

71

00:02:56,710 --> 00:02:54,480

in a meaningful way not to build a

72

00:02:59,110 --> 00:02:56,720

book holder or some other experiment but

73

00:03:01,589 --> 00:02:59,120

really know that what they're doing is

74

00:03:03,430 --> 00:03:01,599

contributing to not just space

75

00:03:05,350 --> 00:03:03,440

exploration but here on earth because

76

00:03:07,750 --> 00:03:05,360

all their experiments need to be

77

00:03:09,509 --> 00:03:07,760

important for space exploration and

78

00:03:10,790 --> 00:03:09,519

earth

79

00:03:12,710 --> 00:03:10,800

development

80

00:03:14,550 --> 00:03:12,720

so you guys are developing experiments

81

00:03:16,309 --> 00:03:14,560

was that what your school is tasked with

82

00:03:18,070 --> 00:03:16,319

yup we

83

00:03:19,270 --> 00:03:18,080

come up with an experiment that somehow

84

00:03:21,430 --> 00:03:19,280

bettens

85

00:03:22,309 --> 00:03:21,440

life for astronauts in space

86

00:03:26,309 --> 00:03:22,319

um

87

00:03:27,830 --> 00:03:26,319

in some way in some very small way and

88

00:03:29,190 --> 00:03:27,840

seek to put it on the space station to

89

00:03:31,030 --> 00:03:29,200

test it out and to put it into

90

00:03:33,270 --> 00:03:31,040

circulation actually

91

00:03:36,470 --> 00:03:33,280

have you done something already yep we

92

00:03:39,030 --> 00:03:36,480

are in the process of developing a tool

93

00:03:42,229 --> 00:03:39,040

it senses how far away tools are

94

00:03:44,869 --> 00:03:42,239

so it uses rfid and you put a sticker on

95

00:03:47,190 --> 00:03:44,879

your object and if it floats a certain

96

00:03:49,110 --> 00:03:47,200

distance away it will alert the user and

97

00:03:51,270 --> 00:03:49,120

it can kind of be work used in reverse

98

00:03:53,270 --> 00:03:51,280

too if you lost something you just bring

99

00:03:55,509 --> 00:03:53,280

the sensor around and it can tell you if

100

00:03:57,429 --> 00:03:55,519

you're close the kids called it spider

101
00:03:59,270 --> 00:03:57,439
which i thought they they came up with

102
00:04:02,229 --> 00:03:59,280
that and i'm like oh it's brilliant

103
00:04:04,789 --> 00:04:02,239
so it stands for spatial um

104
00:04:06,390 --> 00:04:04,799
identification and ranging

105
00:04:07,990 --> 00:04:06,400
wow i like

106
00:04:09,830 --> 00:04:08,000
spider you know with the thread going

107
00:04:12,149 --> 00:04:09,840
out and grabbing my i thought that was a

108
00:04:15,589 --> 00:04:12,159
really clever acronym and so i i just

109
00:04:17,670 --> 00:04:15,599
continually am impressed by my kids and

110
00:04:19,749 --> 00:04:17,680
their ability to to take it up on their

111
00:04:21,830 --> 00:04:19,759
own and and to do a good job that's

112
00:04:24,230 --> 00:04:21,840
that's neat to see and especially i've

113
00:04:25,830 --> 00:04:24,240

i've had kids that that say

114

00:04:27,350 --> 00:04:25,840

this is something i want to do like

115

00:04:29,749 --> 00:04:27,360

they're going to school now and that's

116

00:04:31,510 --> 00:04:29,759

their dream job is to work for nasa and

117

00:04:32,310 --> 00:04:31,520

i'm like oh it's awesome i think it's a

118

00:04:35,030 --> 00:04:32,320

really

119

00:04:36,950 --> 00:04:35,040

incredible opportunity in that way to do

120

00:04:39,670 --> 00:04:36,960

real science to be on a deadline to

121

00:04:41,590 --> 00:04:39,680

purport the proposal to write grants

122

00:04:43,510 --> 00:04:41,600

you know and to to then share your data

123

00:04:45,590 --> 00:04:43,520

with everybody else i think

124

00:04:47,510 --> 00:04:45,600

i mean that's what science is i mean so

125

00:04:49,430 --> 00:04:47,520

they're just doing it on a smaller scale

126

00:04:50,790 --> 00:04:49,440

smaller budget but it's really

127

00:04:53,030 --> 00:04:50,800

the same sort of thing which i think is

128

00:04:55,350 --> 00:04:53,040

cool it's been a real pleasure for me as

129

00:04:56,710 --> 00:04:55,360

an educator to you know because i teach

130

00:04:58,950 --> 00:04:56,720

kids a lot

131

00:05:01,350 --> 00:04:58,960

and they learn things for the test

132

00:05:03,510 --> 00:05:01,360

but to actually see kids working hard

133

00:05:04,629 --> 00:05:03,520

and involving i mean

134

00:05:05,909 --> 00:05:04,639

english

135

00:05:07,590 --> 00:05:05,919

art

136

00:05:08,550 --> 00:05:07,600

math science

137

00:05:10,790 --> 00:05:08,560

you know

138

00:05:13,350 --> 00:05:10,800

in one's specific project has been

139

00:05:15,830 --> 00:05:13,360

really cool and it's it and it's cool

140

00:05:18,230 --> 00:05:15,840

because it opens up for me um just the

141

00:05:20,950 --> 00:05:18,240

whole agency you know with nasa

142

00:05:22,629 --> 00:05:20,960

yeah i mean as a kid who loves science i

143

00:05:24,310 --> 00:05:22,639

mean it's really rejuvenated my teaching

144

00:05:26,070 --> 00:05:24,320

and it gets kids excited about learning

145

00:05:28,070 --> 00:05:26,080

science and

146

00:05:28,870 --> 00:05:28,080

it's been a real it's changed the way i

147

00:05:30,790 --> 00:05:28,880

teach

148

00:05:32,870 --> 00:05:30,800

um and just

149

00:05:34,950 --> 00:05:32,880

the way i look at the kids and the neat

150

00:05:36,629 --> 00:05:34,960

stuff that we do so it's been a real you

