



1  
00:00:09,910 --> 00:00:07,590  
why curiosity matters presented by

2  
00:00:12,390 --> 00:00:09,920  
science at nasa

3  
00:00:14,070 --> 00:00:12,400  
adam stelzner doesn't sound much like an

4  
00:00:16,070 --> 00:00:14,080  
ordinary engineer

5  
00:00:18,390 --> 00:00:16,080  
for instance when we asked him if he

6  
00:00:20,470 --> 00:00:18,400  
would talk about curiosity and explain

7  
00:00:22,390 --> 00:00:20,480  
why the mars rover matters to ordinary

8  
00:00:25,750 --> 00:00:22,400  
people the former rock and roller

9  
00:00:27,830 --> 00:00:25,760  
responded i'm totally down with that

10  
00:00:30,070 --> 00:00:27,840  
he really is down with that

11  
00:00:32,229 --> 00:00:30,080  
stelzner is the nasa engineer who helped

12  
00:00:34,790 --> 00:00:32,239  
take the country's new curiosity rover

13  
00:00:37,830 --> 00:00:34,800

to the surface of mars with moves and

14

00:00:40,790 --> 00:00:37,840

flair even evel knievel would envy

15

00:00:43,750 --> 00:00:40,800

steltzer begins i'm so thankful to clara

16

00:00:45,750 --> 00:00:43,760

ma for suggesting the name curiosity it

17

00:00:47,830 --> 00:00:45,760

embodies a fundamental attribute that

18

00:00:50,549 --> 00:00:47,840

defines us as humans

19

00:00:51,510 --> 00:00:50,559

why do we explore it's our nature he

20

00:00:53,590 --> 00:00:51,520

says

21

00:00:55,990 --> 00:00:53,600

human curiosity is why you and i can

22

00:00:57,990 --> 00:00:56,000

talk across the country by phone it's

23

00:00:59,910 --> 00:00:58,000

why i'm sitting 60 feet above the ground

24

00:01:02,229 --> 00:00:59,920

in a building made of alloys and other

25

00:01:04,390 --> 00:01:02,239

high-tech composite materials we

26  
00:01:07,109 --> 00:01:04,400  
dominate this planet because we wonder

27  
00:01:09,429 --> 00:01:07,119  
what's around the next corner

28  
00:01:10,950 --> 00:01:09,439  
when people ask steltner is the new

29  
00:01:14,149 --> 00:01:10,960  
rover worth two and a half billion

30  
00:01:16,070 --> 00:01:14,159  
dollars he has a compelling answer

31  
00:01:17,670 --> 00:01:16,080  
it's not two and a half billion dollars

32  
00:01:18,870 --> 00:01:17,680  
we stuffed in a trunk and blew into

33  
00:01:21,190 --> 00:01:18,880  
space

34  
00:01:23,350 --> 00:01:21,200  
it's thousands of high-tech jobs spread

35  
00:01:25,590 --> 00:01:23,360  
over 37 states

36  
00:01:26,469 --> 00:01:25,600  
it's honing and developing our skills in

37  
00:01:29,030 --> 00:01:26,479  
science

38  
00:01:31,190 --> 00:01:29,040

engineering and math

39

00:01:34,069 --> 00:01:31,200

he notes that the us has slipped to 14th

40

00:01:35,670 --> 00:01:34,079

in science education and 18th in math

41

00:01:39,990 --> 00:01:35,680

in a world where we're competing for

42

00:01:41,830 --> 00:01:40,000

economic prosperity with nations 1-13

43

00:01:44,310 --> 00:01:41,840

this mission is an investment in

44

00:01:47,350 --> 00:01:44,320

high-tech jobs and inspiring the youth

45

00:01:49,670 --> 00:01:47,360

of our country and stepping up rung by

46

00:01:52,630 --> 00:01:49,680

rung towards first place

47

00:01:55,350 --> 00:01:52,640

it's the best stimulus you could imagine

48

00:01:57,270 --> 00:01:55,360

okay curiosity matters but does it

49

00:01:59,590 --> 00:01:57,280

matter more than rock and roll

50

00:02:02,149 --> 00:01:59,600

stelzner played guitar in a rock band

51  
00:02:04,149 --> 00:02:02,159  
for years so he has the chops to answer

52  
00:02:06,550 --> 00:02:04,159  
this question too

53  
00:02:08,790 --> 00:02:06,560  
in some sense exploration and music are

54  
00:02:11,190 --> 00:02:08,800  
both art forms he says

55  
00:02:13,750 --> 00:02:11,200  
they're both expressions of our humanity

56  
00:02:16,630 --> 00:02:13,760  
but exploration can surprise us more or

57  
00:02:18,949 --> 00:02:16,640  
at least differently than music can

58  
00:02:20,630 --> 00:02:18,959  
music can surprise us only about what we

59  
00:02:22,790 --> 00:02:20,640  
find in ourselves

60  
00:02:26,229 --> 00:02:22,800  
exploration surprises us with what we

61  
00:02:28,309 --> 00:02:26,239  
learn of ourselves and of the universe

62  
00:02:30,070 --> 00:02:28,319  
steltzner says music led him to

63  
00:02:31,830 --> 00:02:30,080

exploration

64

00:02:32,790 --> 00:02:31,840

during high school he played in a rock

65

00:02:34,790 --> 00:02:32,800

band

66

00:02:36,790 --> 00:02:34,800

one night driving home from a gig he

67

00:02:38,390 --> 00:02:36,800

noticed that the constellation orion was

68

00:02:39,670 --> 00:02:38,400

in a different place than it had been

69

00:02:41,509 --> 00:02:39,680

before

70

00:02:43,270 --> 00:02:41,519

but why

71

00:02:46,229 --> 00:02:43,280

i hadn't paid attention during high

72

00:02:48,229 --> 00:02:46,239

school classes at all so i didn't know

73

00:02:49,670 --> 00:02:48,239

his curiosity made him decide to take an

74

00:02:52,070 --> 00:02:49,680

astronomy class

75

00:02:53,830 --> 00:02:52,080

first though astronomy had prerequisites

76

00:02:55,509 --> 00:02:53,840

such as elementary algebra and

77

00:02:57,110 --> 00:02:55,519

conceptual physics

78

00:02:59,110 --> 00:02:57,120

he took them all

79

00:03:01,910 --> 00:02:59,120

i basically redid my high school

80

00:03:03,990 --> 00:03:01,920

education at the community college

81

00:03:06,550 --> 00:03:04,000

the rest which includes a bachelor's

82

00:03:09,589 --> 00:03:06,560

degree from uc davis a master's degree

83

00:03:13,190 --> 00:03:09,599

from caltech a job at jpl and a

84

00:03:15,350 --> 00:03:13,200

daredevil landing on mars is history

85

00:03:19,030 --> 00:03:15,360

after the glory of the curiosity landing

86

00:03:20,949 --> 00:03:19,040

fades what will this explorer do next

87

00:03:23,190 --> 00:03:20,959

our solar system offers us grand

88

00:03:25,910 --> 00:03:23,200

challenges says stelsner

89

00:03:27,430 --> 00:03:25,920

i'd like to see a mars sample return

90

00:03:29,430 --> 00:03:27,440

i'd like to land on the surface of

91

00:03:31,350 --> 00:03:29,440

europa the most likely place in the

92

00:03:33,350 --> 00:03:31,360

solar system for life

93

00:03:35,750 --> 00:03:33,360

and third i'd like to float a boat on

94

00:03:37,670 --> 00:03:35,760

the methane lakes of titan

95

00:03:40,710 --> 00:03:37,680

the solar system is calling out to us he

96

00:03:42,229 --> 00:03:40,720

says the wind's at our back it's time to

97

00:03:44,390 --> 00:03:42,239

explore

98

00:03:46,390 --> 00:03:44,400

we're totally down with that