
SOFIA
NASA

1
00:00:02,280 --> 00:00:07,440
[Music]

2
00:00:08,519 --> 00:00:12,759
>>I've always thought that science was very,
very cool, I've always enjoyed learning as

3
00:00:12,759 --> 00:00:15,150
much as I can about science.

4
00:00:15,150 --> 00:00:19,789
When I look at a understanding of how things
work, it's like a beautiful picture, say you

5
00:00:19,789 --> 00:00:24,310
go somewhere, a museum, you see this beautiful
picture, and you want to show it to your friends

6
00:00:24,310 --> 00:00:27,970
and say 'come look at this, you need to see
this, it's fantastic.'

7
00:00:27,970 --> 00:00:32,850
I want my students to see the Universe through
my eyes.

8
00:00:33,380 --> 00:00:39,660
[Radio chatter]

9
00:00:51,100 --> 00:00:53,640
>>You never know what kind of spark you're going
to ignite.

10
00:00:54,240 --> 00:00:59,480
There's so many children that come into this
world in less ideal situations.

11
00:00:59,480 --> 00:01:03,980
Maybe they will find something, even if it's

not astronomy related, but science related,

12
00:01:03,980 --> 00:01:09,420
math, that will spark an interest in them
that they know that they can have a goal to

13
00:01:09,420 --> 00:01:13,320
reach and see that others have done it.

14
00:01:13,320 --> 00:01:17,670
And I think that's more important than anything
else is giving them an ideal that they can

15
00:01:17,670 --> 00:01:21,030
do anything that they set their mind to.

16
00:01:25,140 --> 00:01:32,120
>>...the shift of the toluic line versus the extragalactic
line- the absorption shifts by 20, 30 kilometers,

17
00:01:32,130 --> 00:01:38,349
and then if you're unlucky then the extragalactic
signal moves into the absorption of the atmosphere,

18
00:01:38,349 --> 00:01:40,189
then it's gone...

19
00:01:40,320 --> 00:01:45,760
>>...most of what we're seeing
here are commands being sent by the science

20
00:01:45,770 --> 00:01:47,580
instrument to the telescope assembly, so...

21
00:01:48,060 --> 00:01:50,720
>>The community and our students, they've really

22
00:01:50,729 --> 00:01:51,950
embraced this.

23
00:01:51,950 --> 00:01:55,299
You can just see the excitement when we talk about it in class, and it's opened up a whole

24
00:01:55,299 --> 00:02:00,229
new pathway to introduce the electromagnetic spectrum into their level of knowledge.

25
00:02:00,229 --> 00:02:07,279
Before we would talk about it, but now we've got a place and an activity that they can

26
00:02:07,279 --> 00:02:11,630
relate back to and go 'oh, infrared, so that's that observatory you're going to be flying

27
00:02:11,630 --> 00:02:16,310
on right, Mr. Beltz?' And they'll just ask all kinds of questions and its sparked all

28
00:02:16,310 --> 00:02:18,190
kinds of interest.

29
00:02:18,780 --> 00:02:23,320
[Music/Background noise]

30
00:02:24,200 --> 00:02:30,780
>>The biggest thing I'm walking away with is just the complexity of SOFIA.

31
00:02:30,780 --> 00:02:35,180
How cutting edge, how complicated this thing is.

32
00:02:35,180 --> 00:02:40,620
And how a lot of different people from a lot of different backgrounds are working together

33

00:02:40,620 --> 00:02:46,560
under the umbrella of SOFIA to make this incredible
piece of machinery work and get really good

34
00:02:46,560 --> 00:02:49,050
data back from it.

35
00:02:51,280 --> 00:02:55,780
>>I think that in having educators on the flight
and giving us the ability to walk around and

36
00:02:55,790 --> 00:03:00,090
talk to the scientists and talk to the telescope
operators and the directors, or even the pilots,

37
00:03:00,090 --> 00:03:04,670
I think that's giving us the opportunity to
gather information that we may have never

38
00:03:04,670 --> 00:03:09,790
had before, or things that we can take back
to our community, or take back to our colleagues

39
00:03:09,790 --> 00:03:13,400
even, to talk to them about the things that
we've experienced.

40
00:03:13,400 --> 00:03:17,970
I think that having these flights with teachers,
I think that is actually giving us a look

41
00:03:17,970 --> 00:03:20,910
inside of something that you normally wouldn't
have.

42
00:03:20,910 --> 00:03:25,960
>>I'm really adding to that toolbox of examples
that I can use in the classroom.