Inspirational Videos

I would just like to end with links to some inspirational videos that may be worth sharing with your teachers. Teachers are responsible for not only educating our students but also for inspiring them. However, sometimes teachers need to be inspired, too.

1. Derek Muller
   http://youtu.be/GEmuEWjHr5c
   "This will revolutionize education."

2. William Kamkwamba
   https://www.ted.com/talks/william_kamkwamba_how_i_harnessed_the_wind?language=en
   "Another book put that knowledge in my hands. It said a windmill could pump water and generate electricity. Pump water meant irrigation, a defense against hunger, which we were experiencing by that time."

3. What adults can learn from kids
   http://www.ted.com/talks/adora_svitan
   "On the other hand, we kids still dream about perfection. And that's a good thing, because in order to make anything a reality, you have to dream about it first."

4. Kids Take Charge
   https://www.ted.com/talks/kiran_bir_sehti_teaches_kids_to_take_charge
   "And I uncovered that if learning is embedded in real-world context, that if you blur the boundaries between school and life, then children go through a journey of 'aware,' where they can see the change, 'enable,' be changed, and then 'empower,' lead the change."

5. A plea for education
   http://www.ted.com/talks/michelle_obama
   "And by getting a good education, you too can control your own destiny."

6. Three rules to spark learning
   http://www.ted.com/talks/ramsey_musallam_3_rules_to_spark_learning
   "But if instead we have the guts to confuse our students, perplex them, and evoke real questions, through those questions, we as teachers have information that we can use to tailor robust and informed methods of blended instruction."

7. Advice to young scientists
   http://www.ted.com/talks/e_o_wilson_advice_to_young_scientists
   "I found out that in science and all its applications, what is crucial is not that technical ability, but it is imagination in all of its applications."

8. Math class needs a makeover
   http://www.ted.com/talks/dan_meyer_math_curriculum_makeover
   "You could literally, I mean this, pass this particular unit without knowing any physics, just knowing how to decode a textbook. That's a shame."

9. How to escape education's Death Valley
"The role of a teacher is to facilitate learning. That's it. And part of the problem is, I think, that the dominant culture of education has come to focus on not teaching and learning, but testing. Now, testing is important. Standardized tests have a place. But they should not be the dominant culture of education. They should be diagnostic. They should help."

10. The world needs all kinds of minds

"When I was in high school I just didn't care at all about studying, until I had Mr. Carlock's science class. He was now Dr. Carlock in the movie. And he got me challenged to figure out an optical illusion room. This brings up the whole thing of you've got to show kids interesting stuff."

11. Every Teacher Needs a Coach

"They made sure that younger teachers get a chance to watch master teachers at work. They have weekly study groups, where teachers get together and talk about what's working."

12. Every kid needs a champion

"Teaching and learning should bring joy. How powerful would our world be if we had kids who were not afraid to take risks, who were not afraid to think, and who had a champion?"

13. Our failing schools. Enough is enough!

"Why, why, why does our education system look so similar to the way it did 50 years ago?"

14. Tales of creativity and play

"And then the sad thing is, although preschools are full of this kind of stuff, as kids go through the school system it all gets taken away. They lose this stuff that facilitates this sort of playful and building mode of thinking."

15. Play is more than just fun.

"And the thing that's so unique about our species is that we're really designed to play through our whole lifetime."

16. The Untapped Genius the Could Change Science for the Better

"It was a poster that saved my dream, and some really incredible people and programs. The American Physical Society had this beautiful poster encouraging students of color to become physicists."

17. My Story from Gangland Daughter to Star Teacher

"And the thing that's so unique about our species is that we're really designed to play through our whole lifetime."
"And so every year, I share my background with my kids, because they need to know that everyone has a story, everyone has a struggle, and everyone needs help along the way."

18. A Private Universe  
http://youtu.be/TrXaQu_qGeo  
"There has been a dilemma facing ALL educators for many years: Why don't even the brightest students truly grasp basic science concepts? There was a documentary done in the 1980's about how everyone, no matter your education...even a Harvard education, goes through life with strongly held misconceptions, and/or preconceptions, about science content."

Below are more notes on the Inspirational Videos from above...

1. About four minutes into the video, Derek Muller, a PhD in Physics who wanted to make films online to teach the general public and students about science, acknowledges that learning is not limited to what we can give to students, but rather what limits learning is what can happen inside the student's head, where the important part of learning takes place. Similar to the Next Generation Science Standards, Derek encourages teachers to shift their thinking and role from being the holder of knowledge to the facilitator. There is NO replacement for a teacher in learning. However, the role of the teacher transmitting information from their head to their students' heads is being replaced by the teacher that inspires, engages, excites, explains, and demonstrates. It is the caring teacher/parent that makes every student/child feel important AND who gets their students/children to think that allows for great learning.  
http://youtu.be/GEmuEWjHr5c

2. Here is a link to one of William Kamkwamba's TED talks that may inspire your students not only to pursue science for the greater good but to follow their dreams and "never give up." (His picture book is part of NSTA's Picture Perfect Science lessons). I believe that the role of the teacher is to inspire their students as much as it is to teach them the content.  
"I felt very happy to be at the secondary school, so I was determined to do anything possible to receive education. So I went to a library. I read books, science books, especially physics. I couldn't read English that well. I used diagrams and pictures to learn the words around them.  
Another book put that knowledge in my hands. It said a windmill could pump water and generate electricity. Pump water meant irrigation, a defense against hunger, which we were experiencing by that time. So I decided I would build one windmill for myself. But I didn't have materials to use, so I went to a scrap yard where I found my materials. Many people, including my mother, said I was crazy. (Laughter)"

https://www.ted.com/talks/william_kamkwamba_how_i_harnessed_the_wind?language=en

3. What adults can learn from kids  
http://www.ted.com/talks/adora_svitak
Child prodigy Adora Svitak says the world needs "childish" thinking: bold ideas, wild creativity and especially optimism. Kids' big dreams deserve high expectations, she says, starting with grownups' willingness to learn from children as much as to teach.

"Then again, who's to say that certain types of irrational thinking aren't exactly what the world needs? Maybe you've had grand plans before, but stopped yourself, thinking,"That's impossible," or "That costs too much," or "That won't benefit me." For better or worse, we kids aren't hampered as much when it comes to thinking about reasons why not to do things. Kids can be full of inspiring aspirations and hopeful thinking, like my wish that no one went hungry, or that everything were free, a kind of utopia. How many of you still dream like that, and believe in the possibilities? Sometimes a knowledge of history and the past failures of Utopian ideals can be a burden, because you know that if everything were free, then the food stocks would become depleted and scarce and lead to chaos. On the other hand, we kids still dream about perfection. And that's a good thing, because in order to make anything a reality, you have to dream about it first."

4. Kids Take Charge
https://www.ted.com/talks/kiran_bir_sethi_teaches_kids_to_take_charge

"So, when I started Riverside school 10 years ago it became a lab, a lab to prototype and refine a design process that could consciously infect the mind with the "I Can" bug. And I uncovered that if learning is embedded in real-world context, that if you blur the boundaries between school and life, then children go through a journey of "aware," where they can see the change, "enable," be changed, and then "empower," lead the change. And that directly increased student wellbeing. Children became more competent, and less helpless. But this was all common sense."

"But we had parents who said, "Okay, making our children good human beings is all very well, but what about math and science and English? Show us the grades." And we did. The data was conclusive. When children are empowered, not only do they do good, they do well, in fact very well, as you can see in this national benchmarking assessment taken by over 2,000 schools in India, Riverside children were outperforming the top 10 schools in India in math, English and science."

5. A plea for education
http://www.ted.com/talks/michelle_obama

Speaking at a London girls' school, Michelle Obama makes a passionate, personal case for each student to take education seriously. It is this new, brilliant generation, she says, that will close the gap between the world as it is and the world as it should be.

"And this school, named after the U.K.'s first female doctor, and the surrounding buildings named for Mexican artist Frida Kahlo, Mary Seacole, the Jamaican nurse known as the "black Florence Nightingale," and the English author, Emily Bronte, honor women who fought sexism, racism and ignorance, to pursue their passions to feed their own souls. They allowed for no obstacles. As the sign said back there, "without limitations." They knew no other way to live than to follow their dreams. And having done so, these women moved many obstacles. And they opened many new doors for millions of female doctors and nurses and artists and authors, all of
whom have followed them. And by getting a good education, you too can control your own destiny."

6. Three rules to spark learning
http://www.ted.com/talks/ramsey_musallam_3_rules_to_spark_learning

It took a life-threatening condition to jolt chemistry teacher Ramsey Musallam out of ten years of "pseudo-teaching" to understand the true role of the educator: to cultivate curiosity. In a fun and personal talk, Musallam gives 3 rules to spark imagination and learning, and get students excited about how the world works.

"You know, questions and curiosity like Maddie's are magnets that draw us towards our teachers, and they transcend all technology or buzzwords in education. But if we place these technologies before student inquiry, we can be robbing ourselves of our greatest tool as teachers: our students' questions. For example, flipping a boring lecture from the classroom to the screen of a mobile device might save instructional time, but if it is the focus of our students' experience, it's the same dehumanizing chatter just wrapped up in fancy clothing. But if instead we have the guts to confuse our students, perplex them, and evoke real questions, through those questions, we as teachers have information that we can use to tailor robust and informed methods of blended instruction."

7. Advice to young scientists
http://www.ted.com/talks/e_o_wilson_advice_to_young_scientists

"The world needs you, badly," begins celebrated biologist E.O. Wilson in his letter to a young scientist. Previewing his upcoming book, he gives advice collected from a lifetime of experience — reminding us that wonder and creativity are the center of the scientific life.

"I found out that in science and all its applications, what is crucial is not that technical ability, but it is imagination in all of its applications. The ability to form concepts with images of entities and processes pictured by intuition. I found out that advances in science rarely come upstream from an ability to stand at a blackboard and conjure images from unfolding mathematical propositions and equations. They are instead the products of downstream imagination leading to hard work, during which mathematical reasoning may or may not prove to be relevant. Ideas emerge when a part of the real or imagined world is studied for its own sake."

8. Math class needs a makeover
http://www.ted.com/talks/dan_meyer_math_curriculum_makeover

Today's math curriculum is teaching students to expect — and excel at — paint-by-numbers classwork, robbing kids of a skill more important than solving problems: formulating them. Dan Meyer shows classroom-tested math exercises that prompt students to stop and think.

"In all seriousness. Here's an example from a physics textbook. It applies equally to math. Notice, first of all here, that you have exactly three pieces of information there, each of which will figure into a formula somewhere, eventually, which the student will then compute. I believe in real life. And ask yourself, what problem have you solved, ever, that was worth solving where you knew all of the given information in advance; where you didn't have a surplus of information and you had to filter it out, or you didn't have sufficient information and had to go
find some. I'm sure we all agree that no problem worth solving is like that. And the textbook, I 
think, knows how it's hamstringing students because, watch this, this is the practice problem set. 
When it comes time to do the actual problem set, we have problems like this right here where 
we're just swapping out numbers and tweaking the context a little bit. And if the student still 
doesn't recognize the stamp this was molded from, it helpfully explains to you what sample 
problem you can return to to find the formula. You could literally, I mean this, pass this particular 
unit without knowing any physics, just knowing how to decode a textbook. That's a shame.

9. How to escape education's Death Valley
http://www.ted.com/talks/ken_robinson_how_to_escape_education_s_death_valley

Sir Ken Robinson outlines 3 principles crucial for the human mind to flourish — and how current 
education culture works against them. In a funny, stirring talk he tells us how to get out of the 
educational "death valley" we now face, and how to nurture our youngest generations with a 
climate of possibility.

"The role of a teacher is to facilitate learning. That's it. And part of the problem is, I think, that the 
dominant culture of education has come to focus on not teaching and learning, but testing. Now, 
testing is important. Standardized tests have a place. But they should not be the dominant 
culture of education. They should be diagnostic. They should help.

But all that should support learning. It shouldn't obstruct it, which of course it often does. So in 
place of curiosity, what we have is a culture of compliance. Our children and teachers are 
encouraged to follow routine algorithms rather than to excite that power of imagination and 
curiosity. And the third principle is this: that human life is inherently creative. It's why we all have 
different résumés. We create our lives, and we can recreate them as we go through them. It's 
the common currency of being a human being. It's why human culture is so interesting and 
diverse and dynamic. I mean, other animals may well have imaginations and creativity, but it's 
not so much in evidence, is it, as ours? I mean, you may have a dog. And your dog may get 
depressed. You know, but it doesn't listen to Radiohead, does it?" 

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10. The world needs all kinds of minds
http://www.ted.com/talks/temple_grandin_the_world_needs_all_kinds_of_minds

Temple Grandin, diagnosed with autism as a child, talks about how her mind works — sharing 
her ability to "think in pictures," which helps her solve problems that neurotypical brains might 
miss. She makes the case that the world needs people on the autism spectrum: visual thinkers, 
pattern thinkers, verbal thinkers, and all kinds of smart geeky kids.
"And this brings up the whole thing of my science teacher. My science teacher is shown absolutely beautifully in the movie. I was a goofball student. When I was in high school I just didn't care at all about studying, until I had Mr. Carlock's science class. He was now Dr. Carlock in the movie. And he got me challenged to figure out an optical illusion room. This brings up the whole thing of you've got to show kids interesting stuff. You know, one of the things that I think maybe TED ought to do is tell all the schools about all the great lectures that are on TED, and there's all kinds of great stuff on the Internet to get these kids turned on. Because I'm seeing a lot of these geeky nerdy kids, and the teachers out in the Midwest, and the other parts of the country, when you get away from these tech areas, they don't know what to do with these kids. And they're not going down the right path."

11. Every Teacher Needs a Coach
https://www.ted.com/talks/bill_gates_teachers_need_real_feedback

"Let's look at the best academic performer: the province of Shanghai, China. Now, they rank number one across the board, in reading, math and science, and one of the keys to Shanghai's incredible success is the way they help teachers keep improving. They made sure that younger teachers get a chance to watch master teachers at work. They have weekly study groups, where teachers get together and talk about what's working. They even require each teacher to observe and give feedback to their colleagues."

"What would that system look like? Well, to find out, our foundation has been working with 3,000 teachers in districts across the country on a project called Measures of Effective Teaching. We had observers watch videos of teachers in the classroom and rate how they did on a range of practices. For example, did they ask their students challenging questions? Did they find multiple ways to explain an idea? We also had students fill out surveys with questions like, "Does your teacher know when the class understands a lesson?" "Do you learn to correct your mistakes?"

12. Every kid needs a champion
http://www.ted.com/talks/rita_piereson_every_kid_needs_a_champion

Rita Pierson, a teacher for 40 years, once heard a colleague say, "They don't pay me to like the kids." Her response: "Kids don't learn from people they don't like." A rousing call to educators to believe in their students and actually connect with them on a real, human, personal level.

"James Comer says that no significant learning can occur without a significant relationship. George Washington Carver says all learning is understanding relationships. Everyone in this room has been affected by a teacher or an adult. For years, I have watched people teach. I have looked at the best and I've looked at some of the worst.

Needless to say, it was. Some people think that you can either have it in you to build a relationship, or you don't. I think Stephen Covey had the right idea. He said you ought to just throw in a few simple things, like seeking first to understand, as opposed to being understood. Simple things, like apologizing. You ever thought about that? Tell a kid you're sorry, they're in shock.

I gave a quiz, 20 questions. A student missed 18. I put a "+2" on his paper and a big smiley face.
You see, "-18" sucks all the life out of you. "+2" said, "I ain't all bad."

Teaching and learning should bring joy. How powerful would our world be if we had kids who were not afraid to take risks, who were not afraid to think, and who had a champion? Every child deserves a champion, an adult who will never give up on them, who understands the power of connection, and insists that they become the best that they can possibly be.

13. Our failing schools. Enough is enough!
http://www.ted.com/talks/geoffrey_canada_our_failing_schools_enough_is_enough

Why, why, why does our education system look so similar to the way it did 50 years ago? Millions of students were failing then, as they are now — and it's because we're clinging to a business model that clearly doesn't work. Education advocate Geoffrey Canada dares the system to look at the data, think about the customers and make systematic shifts in order to help greater numbers of kids excel.

"Here's what we know. We know that the problem begins immediately. Right? This idea, zero to three. My wife, Yvonne, and I, we have four kids, three grown ones and a 15-year-old. That's a longer story. (Laughter) With our first kids, we did not know the science about brain development. We didn't know how critical those first three years were. We didn't know what was happening in those young brains. We didn't know the role that language, a stimulus and response, call and response, how important that was in developing those children. We know that now. What are we doing about it? Nothing. Wealthy people know. Educated people know. And their kids have an advantage. Poor people don't know, and we're not doing anything to help them at all. But we know this is critical.

So here's the other thing. I'm a tester guy. I believe you need data, you need information, because you work at something, you think it's working, and you find out it's not working. I mean, you're educators. You work, you say, you think you've got it, great, no? And you find out they didn't get it. But here's the problem with testing. The testing that we do -- we're going to have our test in New York next week — is in April. You know when we're going to get the results back? Maybe July, maybe June. And the results have great data. They'll tell you Raheem really struggled, couldn't do two-digit multiplication -- so great data, but you're getting it back after school is over. And so, what do you do? You go on vacation. (Laughter) You come back from vacation. Now you've got all of this test data from last year. You don't look at it. Why would you look at it? You're going to go and teach this year. So how much money did we just spend on all of that? Billions and billions of dollars for data that it's too late to use. I need that data in September. I need that data in November. I need to know you're struggling, and I need to know whether or not what I did corrected that. I need to know that this week. I don't need to know that at the end of the year when it's too late.
When the country cares about something, we'll spend a trillion dollars without blinking an eye. When the safety of America is threatened, we will spend any amount of money. The real safety of our nation is preparing this next generation so that they can take our place and be the leaders of the world when it comes to thinking and technology and democracy and all that stuff we care about. I dare say it's a pittance, what it would require for us to really begin to solve some of these problems."

14. Tales of creativity and play
http://www.ted.com/talks/tim_brown_on_creativity_and_play

At the 2008 Serious Play conference, designer Tim Brown talks about the powerful relationship between creative thinking and play — with many examples you can try at home (and one that maybe you shouldn't).

"And he would point this out as evidence that we fear the judgment of our peers, and that we're embarrassed about showing our ideas to people we think of as our peers, to those around us. And this fear is what causes us to be conservative in our thinking. So we might have a wild idea, but we're afraid to share it with anybody else.

OK, so if you try the same exercise with kids, they have no embarrassment at all. They just quite happily show their masterpiece to whoever wants to look at it. But as they learn to become adults, they become much more sensitive to the opinions of others, and they lose that freedom and they do start to become embarrassed. And in studies of kids playing, it's been shown time after time that kids who feel secure, who are in a kind of trusted environment -- they're the ones that feel most free to play.

And if you're starting a design firm, let's say, then you probably also want to create a place where people have the same kind of security. Where they have the same kind of security to take risks. Maybe have the same kind of security to play.

Kids are more engaged with open possibilities. Now, they'll certainly -- when they come across something new, they'll certainly ask, "What is it?" Of course they will. But they'll also ask, "What can I do with it?" And you know, the more creative of them might get to a really interesting example. And this openness is the beginning of exploratory play. Any parents of young kids in the audience? There must be some. Yeah, thought so. So we've all seen it, haven't we?

We've all told stories about how, on Christmas morning, our kids end up playing with the boxes far more than they play with the toys that are inside them. And you know, from an exploration perspective, this behavior makes complete sense. Because you can do a lot more with boxes than you can do with a toy. Even one like, say, Tickle Me Elmo -- which, despite its ingenuity, really only does one thing, whereas boxes offer an infinite number of choices. So again, this is another one of those playful activities that, as we get older, we tend to forget and we have to relearn.

And then the sad thing is, although preschools are full of this kind of stuff, as kids go through the school system it all gets taken away. They lose this stuff that facilitates this sort of playful and building mode of thinking. And of course, by the time you get to the average workplace, maybe the best construction tool we have might be the Post-it notes. It's pretty barren. But by giving
project teams and the clients who they're working with permission to think with their hands, quite complex ideas can spring into life and go right through to execution much more easily.

15. Play is more than just fun.
http://www.ted.com/talks/stuart_brown_says_play_is_more_than_fun_it_s_vital

A pioneer in research on play, Dr. Stuart Brown says humor, games, roughhousing, flirtation and fantasy are more than just fun. Plenty of play in childhood makes for happy, smart adults — and keeping it up can make us smarter at any age.

"JPL we heard this morning -- JPL is an incredible place. They have located two consultants, Frank Wilson and Nate Johnson, who are -- Frank Wilson is a neurologist, Nate Johnson is a mechanic. He taught mechanics in a high school in Long Beach, and found that his students were no longer able to solve problems. And he tried to figure out why. And he came to the conclusion, quite on his own, that the students who could no longer solve problems, such as fixing cars, hadn't worked with their hands. Frank Wilson had written a book called "The Hand." They got together -- JPL hired them. Now JPL, NASA and Boeing, before they will hire a research and development problem solver --even if they're summa cum laude from Harvard or Cal Tech -- if they haven't fixed cars, haven't done stuff with their hands early in life, played with their hands, they can't problem-solve as well. So play is practical, and it's very important.

Nothing lights up the brain like play. Three-dimensional play fires up the cerebellum, puts a lot of impulses into the frontal lobe -- the executive portion -- helps contextual memory be developed, and -- and, and, and.

So it's -- for me, its been an extremely nourishing scholarly adventure to look at the neuroscience that's associated with play, and to bring together people who in their individual disciplines hadn't really thought of it that way. And that's part of what the National Institute for Play is all about.

Now, the program says that the opposite of play is not work, it's depression. And I think if you think about life without play -- no humor, no flirtation, no movies, no games, no fantasy and, and, and. Try and imagine a culture or a life, adult or otherwise without play.And the thing that's so unique about our species is that we're really designed to play through our whole lifetime.

So I would encourage you all to engage not in the work-play differential --where you set aside time to play -- but where your life becomes infused minute by minute, hour by hour, with body, object, social, fantasy, transformational kinds of play.And I think you'll have a better and more empowered life."

16. The Untapped Genius the Could Change Science for the Better
https://www.ted.com/talks/
jedidah_isler_the_untapped_genius_that_could_change_science_for_the_better

This was the other TED talk I referenced about the need for more exposure of women and people of color in the sciences.

"After graduation, and despite knowing that I wanted a PhD in astrophysics, I fell through the cracks. It was a poster that saved my dream, and some really incredible people and programs.
The American Physical Society had this beautiful poster encouraging students of color to become physicists. It was striking to me because it featured a young black girl, probably around 12 years old, looking studiously at some physics equations. I remember thinking I was looking directly back at the little girl who first dared to dream this dream. I immediately wrote to the Society and requested my personal copy of the poster, which to this day still hangs in my office. I described to them in the email my educational path, and my desire to find myself again in pursuit of the PhD. They directed me to the Fisk-Vanderbilt University Bridge Program, itself an intersection of the master's and PhD degrees at two institutions. After two years out of school, they accepted me into the program, and I found myself again on the path to the PhD.

"STEM itself is an intersectional term, such that its true richness cannot be appreciated without considering the liminal space between disciplines. Science, the pursuit of understanding the physical world by way of chemistry, physics, biology, cannot be accomplished in the absence of mathematics. Engineering requires the application of basic science and math to the lived experience. Technology sits firmly on the foundation of math, engineering and science. Math itself serves the critical role of Rosetta Stone, decoding and encoding the physical principles of the world. STEM is utterly incomplete without each individual piece. This is to say nothing of the enrichment that is realized when STEM is combined with other disciplines."

17. My Story from Gangland Daughter to Star Teacher
https://www.ted.com/talks/pearl_arredondo_my_story_from_gangland_daughter_to_star_teacher?language=en

This is the TED Talk that I referred to in one of our car chats about a young girl who's father was a gang leader, and who attended school in LA and now opened her own school.

"So I began my teaching career at the exact same middle school that I attended, and I really wanted to try to save more kids who were just like me. And so every year, I share my background with my kids, because they need to know that everyone has a story, everyone has a struggle, and everyone needs help along the way. And I am going to be their help along the way."

"So we created a new school. And we created the San Fernando Institute for Applied Media. And we made sure that we were still attached to our school district for funding, for support. But with that, we were going to gain freedom: freedom to hire the teachers that we knew were going to be effective; freedom to control the curriculum so that we're not doing lesson 1.2 on page five, no; and freedom to control a budget, to spend money where it matters, not how a district or a state says you have to do it. We wanted those freedoms. But now, shifting an entire paradigm, it hasn't been an easy journey, nor is it even complete. But we had to do it. Our community deserved a new way of doing things."

18. There has been a dilemma facing ALL educators for many years: Why don't even the brightest students truly grasp basic science concepts? There was a documentary done in the 1980's about how everyone, no matter your education...even a Harvard education, goes through life with strongly held misconceptions, and/or preconceptions, about science content. The documentary was called A Private Universe and you can view a clip of the famous opening scene at a Harvard graduation at

http://youtu.be/TrXaQu_qGeo