

School Information about Time Travel Talk by Richard Denning

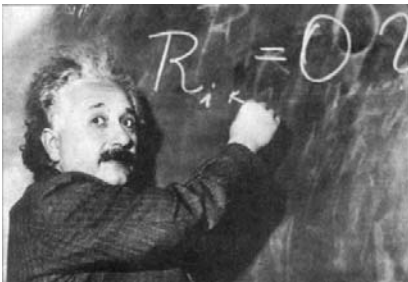
This is a guide to what I will talk about in my talk on Time Travel. The Time Travel Talk I will be doing at your school involves the following:

I will start out with a reading from Tomorrow's Guardian. I go on to ask the children when they THINK the first time travel stories were invented. We look at some examples of books and movies and watch a clip.

I then ask the children a question. I ask them if they THINK time travel is possible. The classes vary in their response. Some are practical minded and just say "no!" but in some classes we have a lively debate between those who think it is not possible, those they think it might be and some ... like me ... who perhaps wish it was.

The science

I go on to cover (in a light hearted way) the science behind the question. I get the children to take part in a couple of experiments to cover the real world knowledge.



I start with this man – Albert Einstein. Even 10 or 11 year olds usually know who he is. Some even know the words “theory of relativity.” I do two activities to teach them the basics of this theory.

Firstly I have two children come out and pretend to be twins. One goes on a space voyage to the other side of the classroom whilst and the other stays on earth (usually popping behind my screen and gaining my granddad's flat cap and walking stick and then emerging). The cards are “atomic clocks” which show the year for both of them. This “experiment” shows what happens if one man goes very fast and the other stays on earth. If you approach light speed time SLOWS down. One man ages whilst the other stays the same age.



I do another experiment having one child sit on the floor with a clock and the other stands on a chair with a clock and we discuss what happens to clocks if one is at the bottom of a valley (in high gravity) and the other at the top of a mountain (in low gravity).

So by doing these I explain how Einstein tells us that Time Travel FORWARD in time is possible – travel fast in a high gravity environment and just like in the *Planet of the Apes* an astronaut would find himself in the future.

I then go on to discuss whether you can travel BACK in time. We discuss worm holes and the work of Professor Mallet in America who is actually experimenting with a time travel machine.



In the end I say that according to Einstein time travel backwards is NOT possible because nothing can go faster than light. BUT then I mention the news that broke just a few weeks ago that might change all that. And we do another experiment with the child emerging holding a babies bottle to show that someone has gone back in time.

Then we go onto have fun about the opportunities and dangers and paradoxes and adventures in time travel



Game to demonstrate the grandfather paradox

All this is done in a fast moving way with NO heavy science. There is no need to cover anything in advance BUT some schools might want to prepare children by having a chat about some of the things we will cover:

Do you think time travel is possible, or might be one day?

When did people first think up the idea of time travel?

Find out who Albert Einstein was.

Think about where you would go and what you would do if you COULD Travel in time.

What are the dangers of time travel?

There will be two or three readings (dependant on time) in the talk. These will feature a girl in the great fire of London, a modern boy (who has dreamt about her) learning how to travel in time and the excerpt when the boy goes back in time to try and rescue her and in the end is rescued by her.

I bring copies of my books along and am happy to sign these if desired for the children. The flyers I send out describe the books and are intended to be given to children in advance. If children want to order afterwards I can handle that as well. However I do the talk without any expectation of sales and will not aggressively sell them.

The talk last 60 minutes or so but can be shortened.

Richard