

Mr. Goodman telling the Kingdom of Darkness Story (5.54 minutes.)

Mr. Goodman: This is nothing harder than middle school physics. Just like science you would get at a good middle school class. I'm not gonna teach you calculus. This isn't gonna be hard, but it will get you to think about light in a different way. We're gonna start with how light gets to your eye after it hits something. We're gonna use a very specialized case using a mirror. So I have to tell you a story first. So here's the story:

There was this King and he has the Kingdom of Light. The King and the Queen were lovers of art, photography, painting; anything visual. The visual arts: they loved it! The King would wake up in the morning and say "Wow! Check it out! My finger moves back and forth when I close one eye and then the other." Then the wife would say, "Hey look what happens when I put my polarized glasses on and look at the water, it looks different!" And the little Princess, the Princess of Light, she just loved color. And she loved to just go out into the fields and every dew drop was just alive with rainbows and it seemed like nothing wasn't beautiful in this Kingdom. Now this would be a pretty boring story, The Kingdom of Light. Everybody's happy if the forces of evil didn't come in. So of course, amassing on the edge of the mountains, were the forces of evil. And they came in one day. And they noticed it at first, everything just looked a little dingy. And the King said to the Queen, "Hey, Queen of Light, there must be something in my eye, everything doesn't look quite right." And the Queen said, "yeah, I noticed the other day, Oh things are getting kind of dark. Oh, Ew It looks olive drab." The Princess comes running in from outside "Everything looks terrible! It's getting dark and scary! It's never been dark! Even in the moonlight, things were beautiful! And now it looks gross and scary!" And suddenly, the evil forces were upon them! They grabbed the King and Queen, took them over the dark mountains, and then they came back and the Princess was just standing in this dim, scary, dark, and ugly world. And they grabbed her and they threw her in the dungeon. Now, they had had a dungeon, but they hadn't really used in recent memory, but they had a dungeon. So the Dungeon was set up like this: There was a big room like so. And off of the room, kind of like this, there was an alcove over here. And just like this there was an alcove over here. These alcoves had cages. So we're looking at this from above. So they put the Princess in the cage over here. And so we're looking at her from above, here's her hair, her nose, her little hands quivering on the cage, all sad and scary. Just so you understand what I'm doing, it would be like her here. Now the forces of evil, they were really evil. They decided, "Let's not just put her in the dark. Let's make it just kind of dim in there." So they hung a light bulb hanging down right here. And they thought "Well, we're gonna keep her forever, until she dies, so we should make her suffer some. Since she really loved how things looked, I bet it would be really awful if we give her a mirror and let her see how she is getting ugly over the years. So they give her a mirror and put the mirror in here with her. And then of course

they wanted to keep her alive for a while so she could suffer so they gave her some water and some crusts of bread every day. Now one more thing I've got to tell you about this. The forces of evil spent so much of their energy being evil that they couldn't remember anything, they had terrible memories, you know if you have to be evil all the time, you're gonna forget the basic stuff. So they had to write stuff down. So it turns out the combination to the cage, they figured once she died, they would want to wash it out or whatever, they wrote the combination here (On the wall of the dungeon), so if 22 11 53 was written here, they knew she couldn't see it. Because if she was here, she couldn't see it, there are bars there right. And they came down every day to give her crusts of water and bread.

Student: Crusts of water?

Mr. Goodman: Haha, yeah, she was thirsty let me tell you, crusts of water and little drops of bread. And so they gave her this food, and the thing was she was very resourceful growing up in this beautiful place and so she made friends with a rat who lived in the dungeon. Now here's the thing, the rat ran around out here and she would every so often throw it little crumbs. It would come out and eat the little crumbs and she thought "Oh," She got an idea. So every day she would get the rat to be a little more friendly with her by feeding it crumbs and eventually she would throw the crumbs right here and the little rat would come with its little whiskers and eat them, and she thought "oh, I know what I can do" So one day she chewed up a big wad of crusty bread and mixed it with some water so it got all pasty and she took it out and stuck it to the side of the rat and turned it around and stuck the mirror to it. So now the mirror is stuck to the side of the rat. So now by throwing bread crumbs she was able to position the rat so that she could see the combination. So you have the set up now.

<http://youtu.be/BpYhz15yUNI>