4/23/15

## Notes to the Future: Persistence of Vision

## **Construction:**

- The construction is the easiest part. All you need are two to three mailing tubes that you can buy from any mailing store like UPS or FedEx. They should come with plastic caps on each end. It is a good idea to cut them down in different lengths so there is a variety of sizes — just know the shorter the tube, the clearer the picture will be. You can make a couple longer ones as well as shorter ones so visitors can have a chance to see the difference in vision. You can even purchase a tube that has a smaller or larger diameter to show them the difference in vision in that aspect as well. An important tip is that you must decorate the tubes as much as possible, that way you can ask a visitor which one they want to use when they come up to your table. Painting the tubes is super easy and you can also wrap them with colored paper or other decorations. On one end, you won't have a cap and we wish we would have covered the end with foam then duct tape over it so when a visitor tries out your exhibit, it is more comfortable when they're moving it from side to side. For the plastic cap on the other end, cut a vertical slit about 1/4 of an inch wide then make it as tall as it can be so the length of the slit is the diameter of the cap.

## **Exhibit:**

- For your exhibit, print off a bunch of fun, colorful sayings or pictures. We printed off photos of Disney characters and sayings like "I love science!" You can increase the difficulty with each photo so then the children feel like they are the best at your exhibit. One thing we learned from a

previous "notes to the future," was that it is a good idea to flip the pictures over so you have a child choose one, without them knowing what it was. They loved guessing what the picture was of and most kids tried every photo.

## **Presentation:**

- Since there is not a lot to the exhibit, it is important you get the kids' attention by waving the tubes in the air so their eye catches them. Smile and greet them when they make it to your table. Show them how to do the experiment first so they understand how to shake it and which way to hold the tube so the slit is vertical. First, have them pick which picture they want to start with. Then, tell them to pick which ever color tube they would like to experiment with and have them hold it with their other one closed. Once they accomplish that, ask if they can see you through the end of the tube so you make sure they are holding it correctly. Then hold the picture a few inches in front of the tube and have them shake it from side to side. A majority of visitors had difficulty with moving the tube fast enough, so we advise having them hold it to their eye and you move it side to side for them if they need help. They'll guess what the picture is of and a lot of the kids get super excited so give them high fives and fist bumps. It was easy to relate it to every day life for the children as well because they have all seen a movie or used a flip book and this is basically the same. The children were easy to win over, but also make sure you pay attention to the teachers and parents as well and ask them if they want to try because they will take a PhyzGuide and understand the science behind it a little more in depth.