

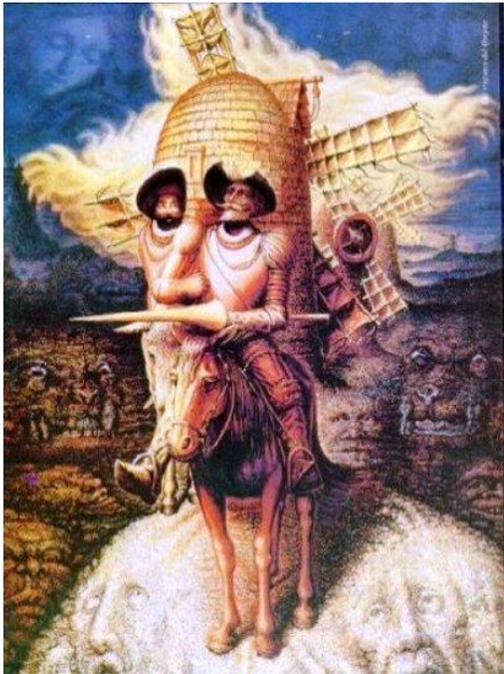
What do our eyes really see?

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Thought: How are the senses of vision and hearing similar?

For many of us, vision is one of our most important senses. But when you see the world around you as well as the optical illusions on the monitor, what limitations do you notice with our sense of site?

FACT: A newborn baby sees the world upside down until the brain learns to interpret the image right side up. How else does our brain affect the images we perceive?



Step One: Place an eye patch over your left eye

Step Two: Look at the “K” on the card and notice the “T”

Step Three: Begin to slowly move the card closer to your face

Step Four: Can you get the “T” to disappear? When it does, you have found your Blind Spot!

Why don't we notice our blind spot in our everyday lives? How does this relate to an Optical Illusion's ability to “trick” our brain?

FACT: Human eyes contain 3 types of cells that together can perceive the millions of different colors we see everyday. Some animals have up to 12 different cells and can perceive even more colors!!!

When you think about all the animals you have ever seen, many of them probably had 2 eyes. As scientists, when we see common trends like this, we tend to think their may be a useful purpose behind such phenomena. Why do you think we have 2 eyes? Maybe the following exercises can help us *visualize* the answer...

Baskets of Beans

Step One: Cover one of your eyes with an eye patch.

Step Two: Look over the surface of the table with your nose aligned at the level of the table top.

Step Three: Take 10 beans and see how many of them you can drop in the cups without lowering your hand below the 12” line.

Step Four: Remove the patch and repeat the game.

Could you get more beans in the cups with one eye or both eyes open?

Closing the Cap

Step One: Cover one of your eyes with an eye patch

Step Two: With you arms outstretched, place a pen cap on a pen.

Step Three: Uncover your eyes and repeat the steps.

Considering the results of both Basket of Beans and Closing the Cap, what can you deduce about the importance of having two eyes?



FACT: An owl can see a mouse from 150 feet away with light no brighter than a candle.



The Wild Kingdom

Now that we have an idea of why we have 2 eyes, let's consider another animal that has 2 eyes... The White Tailed Deer. What do you notice about the eyes of the White Tailed Deer that differs from our own? What advantages and disadvantages do you think this gives this animal? What can the eyes tell us about the lives of animals?

FACT: There are over 21 Million blind individuals living in America today!

Kid's Tech

As you explore Kids' Tech today, think about your sense of vision and how it works with your other senses to perceive the world around you. How can your other senses help you navigate in a really dark room? What are those senses accomplishing that your eyes would normally do in a lighted room?

