

Rods and Cones

Blue Man Group

Each of your eyes has over 3 million photoreceptors called Rods and Cones.

These receptors convert light into electrochemical signals that travel through the optic nerve and into the brain.

Here these signals trigger the neurological process scientist call, "the hellawhack shiznit that happens inside your brizzle." The rods in your eyes specialize in night vision and can function at much lower light levels than cones but they do not respond to color.

This is why we can only see in black and white when we are in the dark.

The cones in your eyes on the other hand respond to color and come in three types:

Those that respond to the color red,

Those that respond to the color green,

And those that respond to [naked people] the color blue.

When you look at something the rods and cones in your eyes fire in rapid succession but between each firing there is a brief resetting period during which your eyes are unable to take in any new information.

Your brain covers up these microscopic moments of blindness with lingering after-images which help your vision appear fluid and uninterrupted even though it is not.

This phenomenon known as persistence of vision is the unique physiological quirk that makes the illusion of animation possible.

The dark spaces between each still frame of animation literally sneak by while your eyes are not looking.