

## 50 - Eyes

Your eye is the size of a ping pong ball, but how exactly do your eyes work? What are the different parts of your eye? And how do your eyes differ from those of animals?

Your eye is filled with a clear, jelly-like material called the vitreous humor -- which forms two-thirds of your eye's volume and gives it its shape. Oh, and that white part? That's the sclera, made of a tough protective material that covers most of your eyeball and houses teensy-tiny, little blood vessels.

For those of you with green eyes -- your eyes *look* green because your iris is green - thanks to genetics! Your iris has muscles attached to it that change its shape by constricting or dilating to control how much light goes through your pupil. Your pupil looks like a black dot but it's hollow -- like a cave. Echo-echo!

After your brain, your eyes are the second most complex part of your body. In fact, your eyes are the like the world's fanciest cameras. When you look at an object, the light reflected from that object enters through your pupils and cornea. Then, the lens at the back of your eye focuses that light (just like you'd focus a camera) and displays the image on your retina.

The macula, a small area in the center of your retina, allows you to see fine details - like recognizing faces. Those details are converted into nerve signals, and sent to your brain through your optic nerve (which is like an electrical cord) -- so your brain can interpret what you're seeing!

### What You'll Learn

1. What are the key parts of your eye and what do they do?
2. How do human eyes differ from those of animals? Which animals can see further? Or more colors? Or have a wider field of view?
3. If our eyes are so complex and advanced - why do so many people need to wear corrective glasses or contact lenses?

### Activities

1. Your eyes might do a great job interpreting information for your brain -- but it IS possible to trick your eyes! Check out [these](#) optical illusions!

2. Magic tricks are another way your eyes can be tricked! It's not really magic but sleight-of-hand. [Here](#) are some great magic tricks kids can do and perform during their own magic show with. Remember, a true magician never reveals their secrets!

3. Looking for a more in depth way to explore the eye and how it works? Check out this [STEM](#) activity for older elementary school kids.

## Additional Resources

Sometimes, people's eyes work differently. Maybe they cannot see to read or maybe they cannot see at all. People who are blind or vision-impaired sometimes need extra help from a guide dog to go to work or run errands. Check out [this](#) video about a special service dog named Egan. Remember, it's very important to ASK before petting a guide or service dog. They might be working!

Also for parents - especially Moms - we recommend checking out [www.WittyMermaid.com](http://www.WittyMermaid.com), an awesome blog from Maria, a friend of Who Smarted? [Witty Mermaid](#) is a practical realm for impractical women who juggle motherhood and work along with all the other hats they wear. It is Maria's honesty space where she shares ideas, offers tips, and inspires others on how to make motherhood, healthy living, and life Realistic, Maintainable, and Fun! Check it out at [Witty Mermaid!](#)

## Kid News

A company in California has invented a new way to pave roads, using recycled plastics! Special machines are able to grind and melt the plastic, mixing them into the paving products. Putting recycled plastics in paving materials is already being used in Europe, Asia, and Africa. It's a stronger, cost saving solution to maintaining roads and increase recycling. You can read the whole article [here](#).<sup>1</sup>

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<sup>1</sup> This activity guide is for the Who Smarted? podcast [www.WhoSmarted.com](http://www.WhoSmarted.com)