

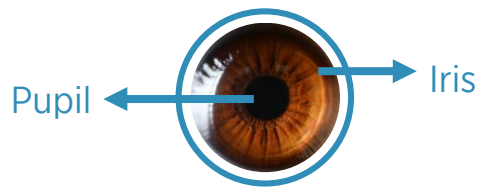
Explore The Animal Kingdom

Cats – Predators of the Night

If you have a pet cat, or if you've watched videos of cats, you will notice that when they are ready to pounce, their pupils will become larger.

This happens because they need to let in all the light possible before they attack.

This is very useful for animals that are active both during the day and during the night since it gives them control over how much light enters their eyes.



Try it out!



Our eyes can also do this. Go in front of the mirror, keep one eye open and cover the other eye with your hand. **Look at the size of the pupil of your open eye.**

After two minutes, remove your hand from your eye and look into the mirror. **Observe what happens to the size of the pupil of the eye that was closed.**

Did you see how it got smaller as it let more light in? Our pupils, as well as those of animals, change in shape or size depending on how much light is around us.

When there is bright light, your pupils will get smaller, and when it's dark, they will grow bigger to let in more light.

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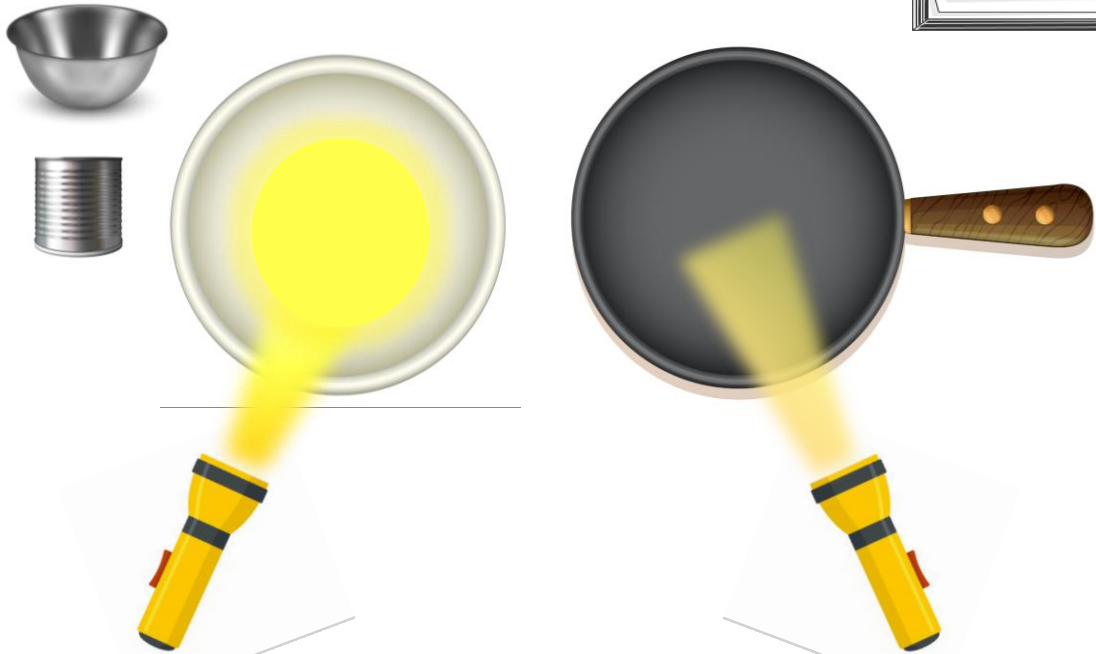
But why do cats' eyes glow in the dark?

Shine a torch on a reflective surface, such as the inside of a metal bowl or a metal can.

Observe what happens.

Shine the same torch on a dark surface such as the inside of a pan. Observe what happens. Compare and contrast. Did you observe any differences?

It's best to try out this activity in the dark!



The light from your torch reflected off the metal reflective surface making it shine brighter than the non-metal surface. The same thing happens in cats' eyes.

Cats have a reflective layer at the back of their eyes which we call *tapetum lucidum*. This layer is made up of a lot of small, mirror-like cells which reflect light, making it easier for cats to see in the dark. This is why their eyes glow at night!

Which other animals have the tapetum lucidum layer?

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