

# Introduction to sense: Sight

Humans and animals use their sense of sight to help to keep safe, to find food and to communicate with others.

Cats squint their eyes as a way to communicate that they would like to be friends, so if you squint back you will let the cat know that you want to be friends too.



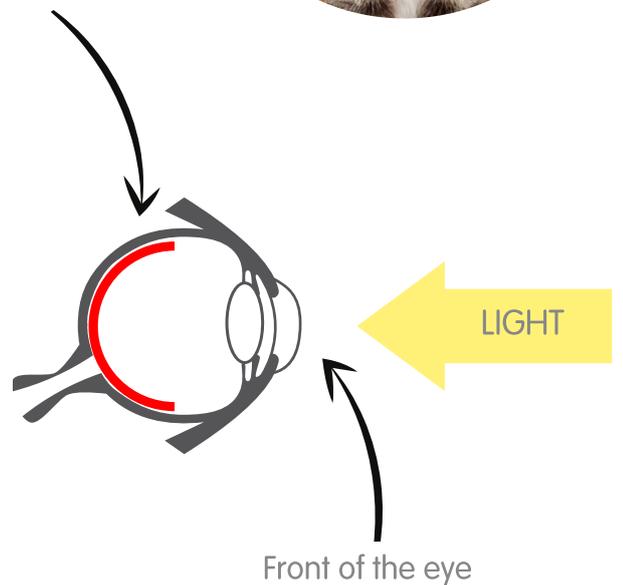
Human and animal eyes are similar, they both have a retina at the back to help them to see.

The retina is made up of rods, which are sensitive to light, and cones, which detect colour.

For example, humans and cats use the retina in different ways:

Humans have more cones than cats do, so they can see colours better.

Cats have more rods than humans do, so they can see better in the dark.



## Checkpoint! What have you learnt so far?

How are human and cat eyes similar? How are they different?

Similarity ..... Difference .....

Can you find the retina on the diagram above?

What do the rods in your retina do? How about the cones?

Rods ..... Cones .....

Now that you know how cats see differently to us, how do you think this could help them to find food or keep safe?

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**Challenge:**  
**Create cat eye goggles and explore the world**  
**through the eyes of a cat!**

**You will need: 2 toilet roll tubes, cling film, blue and green paint/felt-tip pens, tape**

1. Take a piece of cling film and tape it securely on a flat surface. Use the blue paint/felt-tip pen to colour the cling film (be careful to not colour too much, you need to be able to see through it!).
2. Repeat the first step but this time with the green paint/felt-tip pen.
3. Take one of the toilet roll tubes and tightly cover the end with the blue cling film, secure with tape.
4. Take the other toilet roll tube and do the same with the green cling film.
5. Secure the two toilet roll tubes side by side with tape so you can look through them like binoculars.



Using your cat eye goggles, look around your home and garden to see what the world looks like to a cat!



**Questions to think about**

What did you notice? Can you explain how the world looks different?

What happens when you look at something red? How do you think cats see coloured things like flowers?

How could you show other people what a cat can see? Could you create a poster or make a short video?

## Did you know?

Eagles have 1 million rods per square millimetre on their retina (humans only have 200,000 rods per square millimetre).



Falcons can see detailed images even when they are diving at 100mph!

Horses and zebras have eyes on the sides of their head. This widens their range of vision to almost behind them, but it also means they have a blind spot right in front of their nose.

Always approach a horse from the side so they know you're coming!

