

# 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.

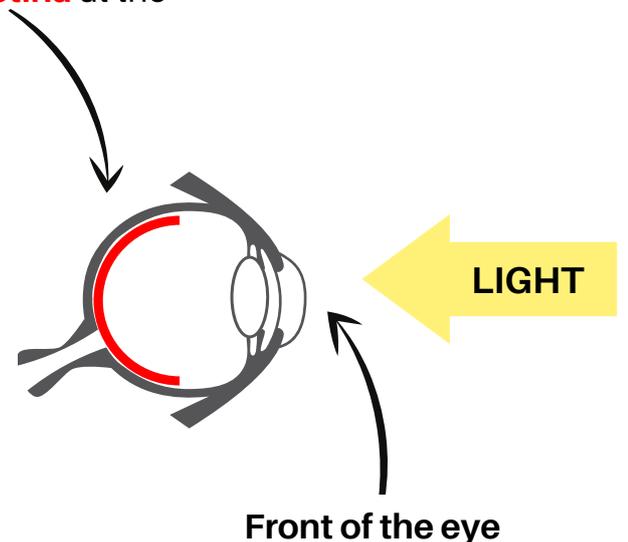
Human and animal eyes are similar, they both have a **retina** at the **back** to help them to see.

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**.



## 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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## 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!



## Try it at Home - Create cat eye goggles and explore the world through the eyes of a cat!

This activity is for children ages 3-11. Young children will need help preparing the materials in the activity whilst older children can create them with very little support or even independently.

You will need: The tube from inside a roll of paper towel or cling film, 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. Cut the cardboard tube in half. Take one of the tubes and tightly **cover the end** with the **blue** cling film, **secure** with tape.
4. Take the other tube and **do the same** with the **green** cling film.
5. **Secure** the two tubes side by side with tape so you can look through them like **binoculars**.
6. Using your cat eye goggles, look around your home and garden to see **what the world looks like to a cat!**

Montessori is a hands-on learning approach that supports children's creativity, curiosity, problem solving and independence. The Montessori Group is pleased to Partner with Humanimal Trust to bring you interactive learning activities found in Montessori schools worldwide.



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### 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?

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