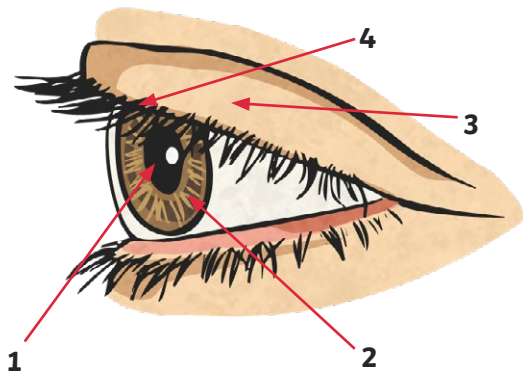


Our Senses - Sight

To see the world around us, we use our eyes. Our eyes are very clever. They can help us to see things that are a very long way away and things that are very close. We can see well when it is bright and even when it is dark. Our eyes come in lots of different colours like blue, brown and green. Your eye is made up of different parts.



The Eye

1. **The Pupil** – the part in the middle of the eye that lets in light.
2. **The Iris** – the coloured part that helps the pupil open and close.
3. **The eyelid** – it keeps the eyeball moist and protects it.
4. **The eyelashes** – they stop dirt and other things from getting into your eyes.

Being able to see well is really important. We do things every day where, if we couldn't see well, it would be very dangerous. It is important that anyone driving a car can see well. It is important that people working on high buildings can see well. Some people can't see very well. This can be for lots of reasons. People's eyes start to not work as well when they get older and some people are born with a part that doesn't work properly, but doctors have lots of ways to help. You can get glasses, which help your eyes to see clearly, or even wear contact lenses, which fit straight onto someone's eye.

Amazing Fact

A tiger can see six times better than a person in the dark! Be careful.



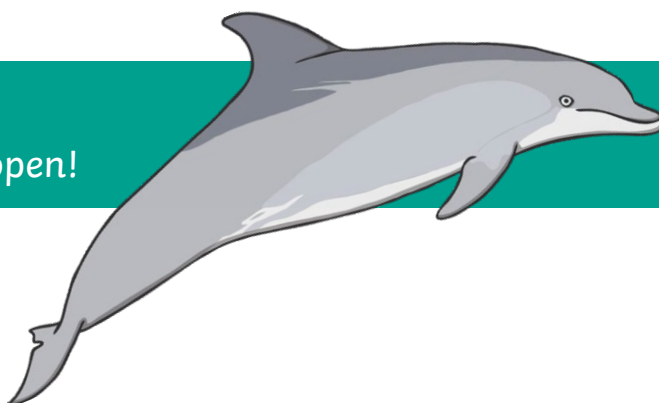


Some people are born not being able to see at all, or they lose their sight. They are known as blind. There are lots of things that blind people do to lead normal lives. They use a white stick to find their way down the pavement and they might have a dog to guide them. Blind people use their sense of touch a lot, instead of sight, to read and work out what things look like.

Our eyes are incredible and are working hard every second we are awake. We blink without even thinking about it and most of what we remember comes from what we see. Be kind to your eyes!

Did You Know?

Dolphins sleep with one eye open!



Our Senses - Sight Questions

1. Can you name three different eye colours?

2. What is the job of the eyelid?

3. What can doctors give you if you cannot see very well?

4. Which animal sleeps with one eye open?

5. Give two things that a blind person might use to help them.

6. Complete this sentence: A _____ can see 6 times better than a person.

Our Senses – Sight **Answers**

1. Can you name three different eye colours?

Some eye colours include blue, brown, green.

2. What is the job of the eyelid?

The eyelid keeps the eyeball moist and protects it.

3. What can doctors give you if you cannot see very well?

Doctors can give you glasses or contact lenses to help you see.

4. Which animal sleeps with one eye open?

A dolphin sleeps with one eye open.

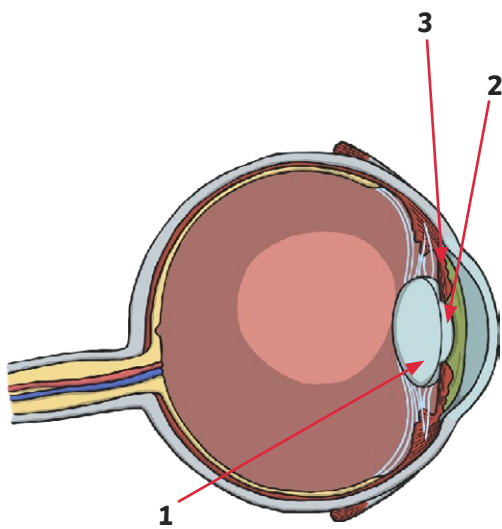
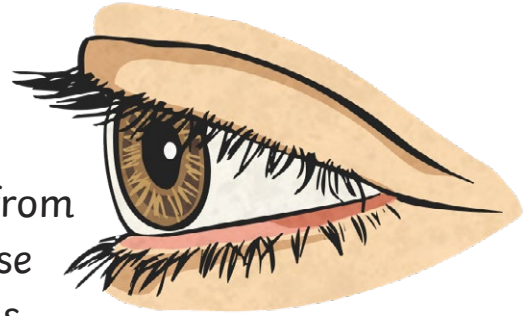
5. Give two things that a blind person might use to help them.

A blind person might use a white stick to help them walk down the street, or a guide dog to show them the way.

6. Complete this sentence: A **tiger** can see 6 times better than a person.

Our Senses - Sight

Our sense of sight is our ability to see the world around us, from the tiniest insect to the hugest mountain. Our eyes allow us to see by taking in light from all around us, and our brains recognise patterns in the light as shapes like balls, trees and faces. Our eyes are made up of different parts that each have important roles to help us see well.



The Eye

1. **The lens:** This part of the eye allows us to focus on objects whether they are a long way away or up close. It is flexible and can change shape quickly to keep our view clear.
2. **The pupil:** This is the dark hole in the middle of the eye and it controls how much light passes into the eye. If it is a very bright day, the pupil shrinks down until it is very small. If you try to walk around in the dark, the pupil will stretch out until it is as wide as it can go to capture as much light as possible.
3. **The iris:** This is the coloured part of the eye. This helps to control the size of the pupil, it is also a link to your family as you do get your eye colour from your parents.

Inside the eye, there are lots of other parts that help you see different colours and how far away things are.

Amazing Fact
Some scorpions have as many as 12 eyes!

Human eyes can be very different from those of other animals. Our eyes are made to see very clearly, whereas the eye of a fly is made to see how fast

things are moving. Snakes use their eyes to detect the body heat of animals they are hunting. Goats even have a pupil shaped like a rectangle so that they can see more of the space around them. Animals' eyes are designed to best help them in their own environments. Humans live in a variety of environments, so the human eye does a bit of everything.



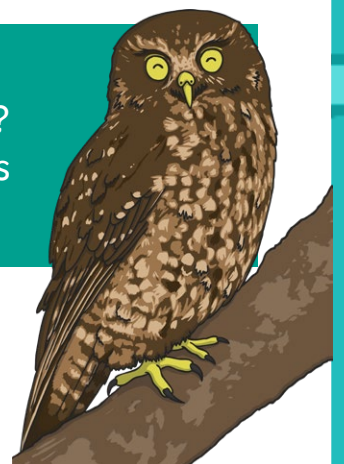
Our sense of sight is important to everyday life but for some people, it is essential to their job. If you are an astronomer, you need your sight to study the stars and if you are an art critic, you need your sight to study the paintings of Van Gogh.



Though the eye is an amazing thing, sometimes it doesn't work as well as it should, but there are different ways now that people can be helped to see. People can wear glasses or contact lenses to help them focus. They can even have an operation on their eyes, which corrects any problems. However, some people do lose their sight or they are born blind. This doesn't mean they are helpless though. They can read books using Braille, a kind of writing made from raised dots, get around with the help of a guide dog and even play blind football!

Amazing Fact

Did you know that owls cannot move their eyeballs? This is why they need to be able to move their heads so easily.



Our Senses - Sight Questions

1. What part of the eye helps you to focus?

2. How many eyes can scorpions have?

3. Which shape is a goat's pupil?

4. Name two ways that people can be helped if they have problems with their eyes.

5. Name one of the jobs that needs good eyesight.

6. What part of the eye is coloured?

7. What does the pupil do in bright light?

8. Which activity do you think would be the hardest if you have poor eyesight?

Our Senses – Sight **Answers**

1. What part of the eye helps you to focus?

The lens helps you to focus.

2. Which animals can use their eyes to detect body heat?

Snakes can detect body heat.

3. Which shape is a goat's pupil?

A goat's pupil is a rectangle shape.

4. Name two ways that people can be helped if they have problems with their eyes.

They can have glasses or contact lenses, eye surgery, have a guide dog or use Braille to help them to read.

5. Name one of the jobs that needs good eyesight.

Astronomers and art critics need good eyesight.

6. What part of the eye is coloured?

The iris is the coloured part of the eye.

7. What does the pupil do in bright light?

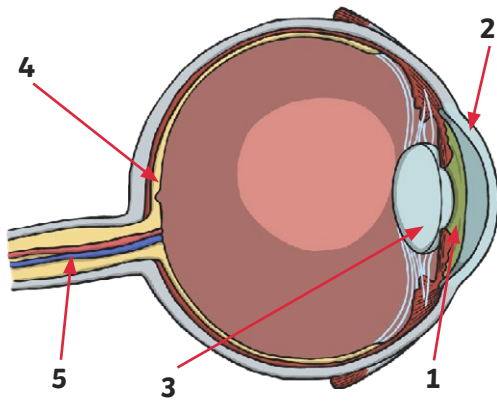
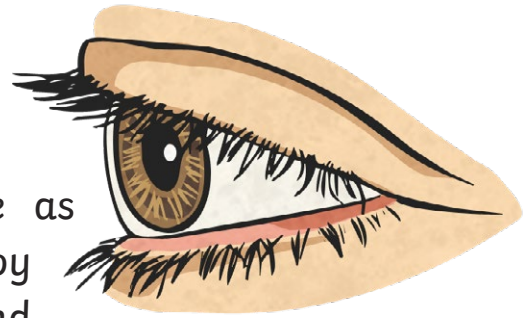
The pupil gets smaller to let less light in.

8. Which activity do you think would be the hardest if you have poor eyesight?

Children's own answers.

Our Senses - Sight

Scientists believe that the eye is the second most complex organ in the human body after the brain. Not bad for something that weighs as little as 27 grams. Our eyes allow us to enjoy sunsets, thunderstorms, birthdays and cup finals. Our eyes work by allowing light to enter through the pupil and hit the retina at the back of the eye. This is a bit like a film projecting onto a screen at the cinema. The eye is made up of a number of different parts.



The Eye

1. **Iris** - coloured part of the eye which controls the size of the pupil.
2. **Cornea** - controls and refracts the light onto the retina.
3. **Lens** - focuses the light arriving through the pupil.
4. **Retina** - the area sensitive to light and images.
5. **Optic Nerve** - carries messages from the eye to the brain.

The pupil allows light to enter the eye. It can grow and shrink to allow in the maximum amount of light possible. If it is dark, the pupil is forced to open wide to allow the maximum amount of light possible in. The lens allows the eye to focus, whether we are looking at an object that is very close to us, or a great distance

Brilliant Fact

In your lifetime, your eyes will have seen more than 24 million different images!

away. The lens ensures that we see a clear image, not a blurry one. The retina takes all of this information and sends it down the optic nerve to brain. Strangely, the information is sent upside down!

The brain has to turn it the right way up! Our eyes are phenomenal: they are able to see thousands of colours, see depth and speed with no problems. We have sent men to the moon, saved lives and discovered cures to diseases, but scientists aren't even close to producing a camera as powerful as the human eye!

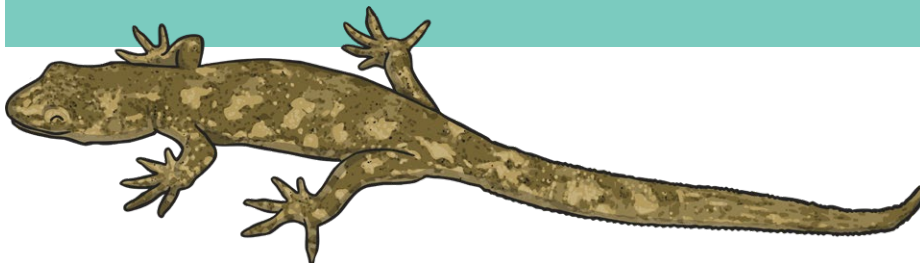


Modern science now means that even those who struggle with their eyes can be helped.

Glasses and contact lenses can help people who find it hard to focus, and laser surgery can permanently fix some problems. In some extreme cases, people are given cornea transplants. There are even experiments taking place with shark's eyes. Soon, science may make blindness a thing of the past!

The animal kingdom has some equally impressive eyes:

- An owl can see a mouse moving more than 50 metres away.
- A box jellyfish has 24 eyes!
- A dragonfly has 30,000 lenses in its eyes to help it spot predators.
- Geckos can see colours around 350 times better than humans.



Our Senses - Sight Questions

1. Which part of the eye carries messages directly to the brain?

2. How many lenses does a dragonfly have in its eyes?

3. Which organ is more complex than the human eye?

4. What is unusual about the image that our eyes see?

5. Why should mice stay a long way from owls?

6. Which animal has corneas very similar to a human ones?

7. In your lifetime, how many images will you have seen?

8. Which of your senses do you think is most important? Why?

Our Senses – Sight **Answers**

1. Which part of the eye carries messages directly to the brain?

The optic nerve carries messages to the brain.

2. How many lenses does a dragonfly have in its eyes?

A dragonfly has 30,000 lenses in its eyes.

3. Which organ is more complex than the human eye?

The brain is more complex than the eye.

4. What is unusual about the image that our eyes see?

The image is upside down and our eye corrects it to the right way up!

5. Why should mice stay a long way from owls?

Owls can see 50m in the dark.

6. Which animal has corneas very similar to human ones?

A shark has corneas similar to a human one.

7. In your lifetime, how many images will you have seen?

In your lifetime, you will see over 24 million different images.

8. Which of your senses do you think is most important?

Why? Children's own answers.