

GUIDE
DOGS



Eye See

Learning to live healthily
and look after your eyes

Welcome to Eye See

A series of STEAM sessions about the eye, the importance of good eye health and the links to healthy living. The sessions are suitable for both youth groups and schools. They are linked to the following points in the Scottish, Welsh, English RSE and Northern Irish curriculums.



Biological Systems



Safe and unsafe exposure to the Sun



Healthy eating



Senses and sensory organs (functions)



Physical health and wellbeing



Impact of life choices on organs

You can choose to do one, or both sessions with your group. The first is all about our eyes, how the eye works and how eye conditions can affect our eyesight. The second is about good eye health, what can help our eyes and what can damage them. We have also included the details of our Art in the Dark challenge.

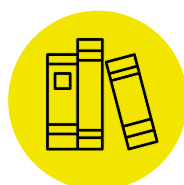


About Guide Dogs

We are a charity that offers a range of services. We support adults and children and young people with a vision impairment.

Our children's services include education support, technology and grants, custom made large print books, events for the whole family and skills to get around and live independently.

Our services for adults include the Guide Dog service, we breed and train our guide dogs to guide their owners and avoid obstacles and our My Guide volunteer service, which helps people get out and about with a sighted volunteer. To find out more about all our services visit our web page www.guidedogs.org.uk/services





Session Plan: Our eyes

You will need

A board, copies of the eye diagram, the eye condition simulator Powerpoint (download, optional).

Using your senses

Talk to your group about the 5 senses. We have 5 senses; they interpret/ tell us about the world around us.

Ask: Can they name the 5 senses? Which parts of your body are the sensory organs? How do you use your senses during your day?

Let's take a closer look at the eye

On the board, or a flipchart write the following colour titles: brown, blue, grey, hazel, green. Explain that the coloured part of the eye is called the iris and eyes come in different colours. Ask each young person in turn to tell you the colour of their partner's eyes and make a tally under each colour. Add up each total to find out the most common colour in your group.



Fact - the most common eye colour in the world is brown followed by blue!

Split the young people into groups and tell them you want to find out what they already know about eyes. Younger children may need more prompts than older ones. You might ask them if they can name any parts of the eye. Do they know why we have eyelids, eyebrows, eyelashes and why we cry tears? Older groups may do some research using the internet or books.

Bring the groups back together. Explain that our eyes are like little cameras, taking pictures, which are sent as messages to the brain. Eyes are moved by tiny muscles in the eye socket, they are well protected being deeply set into the skull (means we only see a little of each eyeball). They are also protected by eyebrows, eyelashes and eyelids which stop sweat, dust and dirt getting in. Our eyelids close right over our eyes and shut out the light which helps the eyes to rest. Our eyes produce tears to keep the eye lubricated, if we get something in our eye, tears remove the irritant. We also produce tears in emotional situations, this could be in response to something upsetting or funny.

Use the resource sheet inside the eye to name the parts of the eye, then explain:

1. The eye is affected by the amount of light.
2. An upside-down image is formed at the dark back wall of the eye.
3. This is then sent as an electrical signal and travels along the optic nerve.
4. It arrives at the brain which turns the image the right way around.

Eye conditions

Explain that vision impairment is one of the terms used to describe when a person has no sight or when a person has reduced eyesight, which cannot be corrected with glasses. Some of the other terms used are sight loss, eye condition, partially sighted, blind and sight impaired.



Case Study: Caitlin's story

Caitlin is no ordinary teenage girl. She loves writing songs and playing piano, as a way of expressing her feelings and thoughts. One of the highlights was performing in front of 300 people at her music school. She has her own YouTube channel and she competes regularly in judo contests. Surprisingly, Caitlin also has a severe vision impairment, she was born with glaucoma and underwent almost 50 operations before she was five. Caitlin still has some sight in her right eye, but growing up with a vision impairment hasn't been easy. Starting school was challenging, as she lacked the confidence to join in with activities and it was time consuming to get lessons adapted. "The kids in primary school treated me differently," she says. "I didn't get invited to sleepovers or to go out with them, because their parents felt uncomfortable and didn't know what to do."

Guide Dogs was appointed by the council to support Caitlin from the age of five, starting with teaching her to find her way around school, and eventually learning to use a cane. We also provided CustomEyes books, so she could read her favourite stories such as David Walliams' Mr Stink in large print.

In 2018, Caitlin won gold at the first national visually impaired judo competition, in London and she's been invited to train with the British judo visually impaired team, as part of the Paralympic Potential Programme.

Claire, Caitlin's mum says: "It now feels like Caitlin is doing normal teen stuff, which I don't think would have happened otherwise. Having a vision impairment needn't stop you from doing anything and Caitlin is proof of this. She's always said the vision impairment has to keep up with her, rather than the other way around."

Explain that **2 million** people in the U.K have some level of vision impairment, about **34,000** of those are children or young people.

Some people are born with an eye condition which causes their vision impairment. Some people lose their vision due to an eye condition or through illness or accident. For many people their eye condition gets worse over a period of many years.

Explain that there is a lot of support and innovation that people with a vision impairment can access. Losing your sight can be scary, but organisations and charities like Guide Dogs, are there to help people to lead confident, independent and fulfilling lives.

Optional

Show the group examples of eye conditions and how they can affect people's eyesight, using the PowerPoint **eye condition simulator** which is available to download on the Guide Dogs website, or search the web for images of eye conditions. The most common are:

- **Glaucoma** – affects the optic nerve
- **Cataracts** – clouding of the lens
- **Diabetic retinopathy** – affects the blood vessels in the retina
- **Macular degeneration** – affects the macular, which is part of the retina
- **Retinitis Pigmentosa** – affects the retina





Session Plan: **Good Eye Health**

You will need

The eye health cards cut up, enough for a set for each small group, Snellen chart and pictures download(optional).

Explain to the group, it's really important to regularly check that we are healthy, including our eyes. It's also important to live healthily and look after our eyes.

Ask: Does anyone know where you need to go, to get your eyes checked?

Has anyone been to the opticians?

Does anyone know what happens when you visit? Show the example chart

How often should you go to the opticians? At least every 2 years.

How much do you think it would cost for you to have your eyes tested? £0

What helps our eyesight and what can harm it? - activity

Split the young people into small groups. Give each group a set of cards, or place the cards around the room so that they must seek out and collect things that are healthy. Ask them to sort the cards into two or three piles, one good for you/ your eyes, one bad for you/ your eyes and if needed, a pile for not sure.

After each group has sorted the cards, go through them as a large group and discuss why they put the cards in those piles, or only collected certain cards.



Sweets / sugar / fast food

Ask why is it important that we don't consume too much sugar, or fast food - as it can lead to all sorts of health issues. One of the eye conditions that can cause sight loss is linked to diabetes, if you have diabetes and consume a lot of sugar it could affect your vision. Fatty foods such as burger and chips are full of oil, which can clog your arteries if you eat them too often and cause high blood pressure, which can damage your eyes.



Sleep, water and healthy foods

Ask what we mean by healthy diet and good sleep, the effects on people's eyes, their whole body and wellbeing. Discuss why certain foods are good for us such as **green leafy vegetables, carrots, fish and citrus fruits** which all help our eyes and the importance of limiting other foods. Explain, why keeping hydrated with water is important.



The Sun and being outdoors

Why is it good and bad? Looking directly at the sun UV rays can harm your eyes and prolonged exposure to the sun can cause sunburn, but getting out in the fresh air and sunshine is good for your eyes and your overall physical health and wellbeing. The sun provides vitamin D an essential vitamin for good health. Finding a balance by protecting your body from the sun's rays is important. How could you protect yourself? **Sunglasses**, cream - UV protection, shade.



Alcohol and smoking

Smoking can harm the tissue in your eyes and excessive alcohol consumption can permanently damage the optic nerves.



Fireworks, power tools or chemicals could damage our sight if we don't use them safely, what can we do/ wear? Safety **Glasses**.



TV and tablets

Staying in all day and watching TV or using a tablet can be bad for your eyes, as it can cause eye strain and overexposure to blue light. Also, because you are not exercising, or getting outdoors (getting vitamin D), this kind of inactivity can have a negative effect on your eyes and overall health. A study in China found a link between short-sightedness (Myopia) and being indoors (The Guangzhou Outdoor Activity Longitudinal Study).

Tell the group:

Here are some facts about sight loss:

- Every day 250 people in the UK start to lose their sight.
- One in four adults do not know that an eye test could prevent them from losing their sight.
- One in four adults has not had an eye test in the last two years.

For children and young people eye health awareness is particularly important:

- One in five children has an undetected problem with their vision.
- One in three children aged eight or under, have never had an eye test at the opticians. Vision screening is carried out by Orthoptists in some areas when children are aged 4 to 5, but everyone needs regular checks.

How many people could this be in your group?

Our eyesight is really important and there's a lot we can do to stay healthy.

Next steps

At Home

You may want to set your group the task of finding out when they last had their eyes tested, at the opticians.

Support us

Take part in our Art in the Dark challenge.





Challenge: **Art in the Dark challenge**

We would love for your group to take part in our Art in the Dark challenge. This immersive experience will leave them with a new appreciation of how important their eyesight is, why we need to do everything we can to look after it and to support people living with sight loss.

It's easy, all you need to do is set your group the challenge to create a piece of art (together or as individuals), using their other senses and their imagination. We've included a mask template in the resource pack.

Please use our blindfold activities risk assessment (on the webpage) and consider the safety of your young people at all times.

For your group:

Take part in Guide Dogs Art in the Dark challenge. You could put on a show, produce a film, perform a song, or hold an art exhibition. You could complete your art in the dark, using blindfolds, a scarf, design your own masks, or even get your audience to experience your work under blindfold. This will give you some understanding, of some of the challenges faced by children and young people with a vision impairment and it's a great way to raise money for Guide Dogs.

Art in the Dark, challenge ideas

Start your group off with these art ideas.

Art and crafts

drawing, finger painting, sculpture.

Performing arts

music/ concert in the dark, film, theatre, dance, storytelling with sounds and more.

To raise funds as part of your Art in the Dark challenge, you could ask for sponsorship, hold an event and sell tickets, or sell what you make. For our free fundraising pack and information on how to bank any funds, please contact us at **learning@guidedogs.org.uk** or call **0345 372 0192**.



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Contact Us

www.guidedogs.org.uk/learning

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