



# Make Sense

Finding the way through sensory play

## Session Plans & Activity Sheets



For more interactive resources visit

[www.guidedogs.org.uk/schools](http://www.guidedogs.org.uk/schools)

# Make Sense

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## Session Plans & Activity Sheets

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# Make Sense

**Welcome to Make Sense – a series of fun sensory sessions designed to get your class exploring the senses.**

## About us

Guide Dogs is a charity that trains and breeds guide dogs who help visually impaired people live independent lives. Our dogs give their owners the freedom and confidence to be who they want to be.

Even little things that we can take for granted like going to the shops, meeting friends or getting to school can seem almost impossible when you lose your sight. Sight loss is life changing but so are guide dogs.

A guide dog is an every day hero for its owner – a friend, support and a means to get out and about, they give visually impaired people a brighter future.



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## Our Amazing Partnerships

### Lauren & Goldie

At the age of 13 I suffered sudden and profound sight loss. I first of all noticed that I was unable to see clearly out of my right eye, after a trip to the local opticians I was told that this was an unexplainable sight loss and was therefore referred to hospital. By the time I went to the hospital about 2 weeks later the sight loss had spread to my left eye as well. I was able to read large print for a few months and then my vision deteriorated further meaning that I was unable to see print any more. My world was turned upside down, I could no longer read, walk about independently and I had no confidence. My consultant found it very hard to find a diagnosis for my sight loss and about 8 months after the first visit to the hospital I was finally diagnosed with Leber's Hereditary Optic Neuropathy (LHON).

LHON is a very rare genetic condition and therefore this is why it took so long for the doctors to figure out what was wrong with my eyes. Rather than being sad on the day of my diagnosis I remember an overwhelming feeling of relief that I eventually had a diagnosis and that I could now receive the support that I needed at school. Due to the fact that I could no longer read large print I needed to learn braille, how to touch type, to use a long cane and many other skills that were simple when I was sighted. I had to leave my main stream school and attend a specialist boarding school called New College Worcester. I learnt braille quickly and was able to get C's and above in all of my GCSE'S and pass all of my A levels. I now study Theology at the University Of Gloucester.



Once I had left Worcester I had almost everything that I needed to live an independent life. However I had no confidence, I was on the waiting list for a guide dog because I believed that the addition of a guide dog to my life could make me the old Lauren again.

In October 2012, 3 months after leaving school I received a call informing me that there was a guide dog who was a match for me and that we could start training a week later. My guide dog is a golden retriever called Goldie. I remember the feeling of freedom when I first went out with her, it felt like all of the doors that sight loss had slammed in my face were now being thrown open again. Goldie has given me back the independence and confidence that I lost and Goldie has once more allowed me to be the real me.

Now because of Goldie I am able to meet friends when I want and not have to rely on others to drive me there and back. I can walk to university knowing that I will safely get there, I can go shopping which is something that I love to do because I love clothes and make up. Also since having Goldie I have travelled to London on my own using the train, tube and taxis which I would never have believed possible before Goldie came in to my life. I know it sounds like a cliché but guide dogs really are life changers and I don't know what I would do without Guide Dogs and my amazing Goldie.



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## Would your pupils like to meet a guide dog?



**Are you looking for a creative way to learn about the senses, how animals help us or disability awareness?**

We'd love to come along to your school to tell you our story.

Our schools visits are educational, inspiring and entertaining, covering:

- What its like to live without sight
- Why guide dogs are every day heroes for their owners
- How guide dogs are trained and how they work
- How to make your community a safer place for people with visual impairment

Our schools ambassadors are guide dog owners and puppy walkers, and will bring along their dog or puppy to meet your pupils.

We can hold assemblies or come around to individual classes, whatever works for you.

To book your visit email:

**[schools@guidedogs.org.uk](mailto:schools@guidedogs.org.uk)**

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## Curriculum links

We've made sure that our Make Sense sessions fit in with the National Curriculum requirements for Science, Art & Design. The sessions and activities link in with these key areas:

### Curriculum Links (England) KS1 & KS2

Use of everyday materials – find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

Using their senses pupils should compare different textures, sounds and smells.

Scientific method framework – conducting a series of experiments using everyday materials.

Exploring light and colour.

Evolution and inheritance.

Use a range of materials to design and make products.

Develop a wide range of art & design techniques using colour, pattern, texture, lines, shape, form and space.

### Education Scotland Foundation, First & 2nd

Biodiversity and interdependence - SCN 0-01a,

Forces SCN 0-07a SCN 1-07a

Vibration and waves SCN 0-11a

SCN 2-11b

Body systems and cells SCN 0-12a SCN 1-12b SCN 2-12b

Inheritance SCN 1-14a

Properties and uses of substances SCN 0-15a SCN 1-15a SCN 2-16a

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## Learning Wales Curriculum for Foundation & KS2

Knowledge and Understanding of the world

Myself and other living things

Myself and non living things

Classification and identification

Making things

Interdependence of organisms

How things work

Finding evidence, information and ideas

Methods and strategies

Observing and measuring

## Northern Ireland KS1 & KS2

The world around us

Interdependence – who am I, what am I?

How living things rely on each other?

Movement and energy

How and why do things move

now and in the past?

How do things work?

Where do living things move?

Why do people and animals move?

The causes and effect of energy, forces and movement.

How place influences the nature of life.

Change over time - ;

How we grow, move and use our senses? (S&T);

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## Fundraising

### Lesson plan

#### Aim:

To encourage children to understand that Guide Dogs is a charity. We have made a promise to provide every guide dog owner with a guide dog for as long as they need one. Your class can help us deliver that promise and make sure people with visual impairments aren't left out of life.

#### Objectives:

To get children involved in simple fundraising activities in order to raise money so they can fundraise and sponsor a puppy and support Guide Dogs.

#### Teacher Notes:

To support your lesson you can use additional resources including puppy shopping list, A-Z of fundraising ideas and information about Sponsor a Puppy.

If you'd like to invite a speaker along to inspire your class and see where the funds you raise are spent, you can email [speakers@guidedogs.org.uk](mailto:speakers@guidedogs.org.uk) to arrange a visit.

#### Why does Guide Dogs Exist?

Almost two million people in the UK are living with sight loss that has a significant impact on their daily lives. Of those, around 180,000 rarely leave their homes alone and lead lonely, isolated lives. Our aim is to help people with sight loss feel part of life.

We provide support to help people with sight loss move around safely and confidently, to get out of their homes and be able to live their lives the way they choose.

We are best known for achieving this through our world-famous guide dogs, but our work now encompasses so much more. In recent years we have extended our work to help people with sight loss tackle obstacles they face on a daily basis.

We work for a world where people with sight loss are never left out of life, for a world where being blind or partially sighted is not what defines you. A world with enough support to make the challenges of sight loss no barrier to fulfilling hopes and dreams.



# Make Sense

## Finding the way through sensory play

### Lesson content:

#### Introduction

1. Write the word 'charity' on the board, or scramble the letters up on an interactive board and ask the children to rearrange them so it spells the words correctly. To make this more interactive you could print the letters out on separate pieces of paper and ask 7 children to stand in the wrong order and the rest of the class to tell them where to stand so the word is spelled correctly. Once the children have the correct word ask them to know what it says.
2. Ask the children to put their hands up if they have heard of the word 'charity' before. What do they think it means? Can they give any examples of charities they know their families support or are aware of? Make a note of these on a flipchart.
3. Set the scene: Explain to the children that we have been learning about the senses and living without sight. The charity Guide Dogs helps people who are blind or visually impaired to live independent lives. Explore the bullet points below which explain why the charity is needed and why fundraising is key:
  - **Almost two million people in the UK are living with sight loss that has a significant impact on their daily lives. By 2050, there could be nearly four million.**
  - **180,000 people with sight loss rarely leave home alone**
  - **Almost 50% of people who are blind or partially sighted feel cut off from the people and things around them**
  - **We've made a lifetime promise to provide every one of our guide dog owners with a guide dog for as long as they need one.**
  - **It costs £56,800 to support a guide dog from birth to retirement**
  - **Only 1% of our work is funded by the government. 99% is funded by the fundraising activities of the public. Without this, Guide Dogs couldn't exist**
  - **To show our work in action, show the children the photographs on the following page and discuss how each photograph shows the work of the charity.**
4. Ask the children to think about fun ways in which they could raise money – you could use the A-Z of fundraising in this booklet to prompt them. The activity should be fun and engaging, and could be individual or group led, a sponsored event or something simple like a dress down day or bake sale. Once the activity has been decided upon. Ask the children to mind map all the things they would need to plan before they start fundraising. Consider things like – where, what, how, who and practical elements like who will count the money and how will it be paid in. How will you make people aware of the event and gather support?
5. Where will the money go? The money you raise helps Guide Dogs make sure that when people lose their sight they don't lose out on life, and will help breed, raise and train life changing guide dogs and provide essential services to adults and children with eye conditions. Take a look at our Puppy Shopping List in this booklet to work out how your hard earned funds could be spent.
6. Thank you! We recognise that while fundraising is a lot of fun, its also a lot of hard work and effort and we'd like to thank you for taking the time to arrange an event that will change the lives of people with visual impairment.

**We're here to make sure nobody with sight loss is left out of life.**





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## Activity Sheet

### The Senses

Our senses allow us to explore and understand the world around us. There are 5 senses:

**Sight**

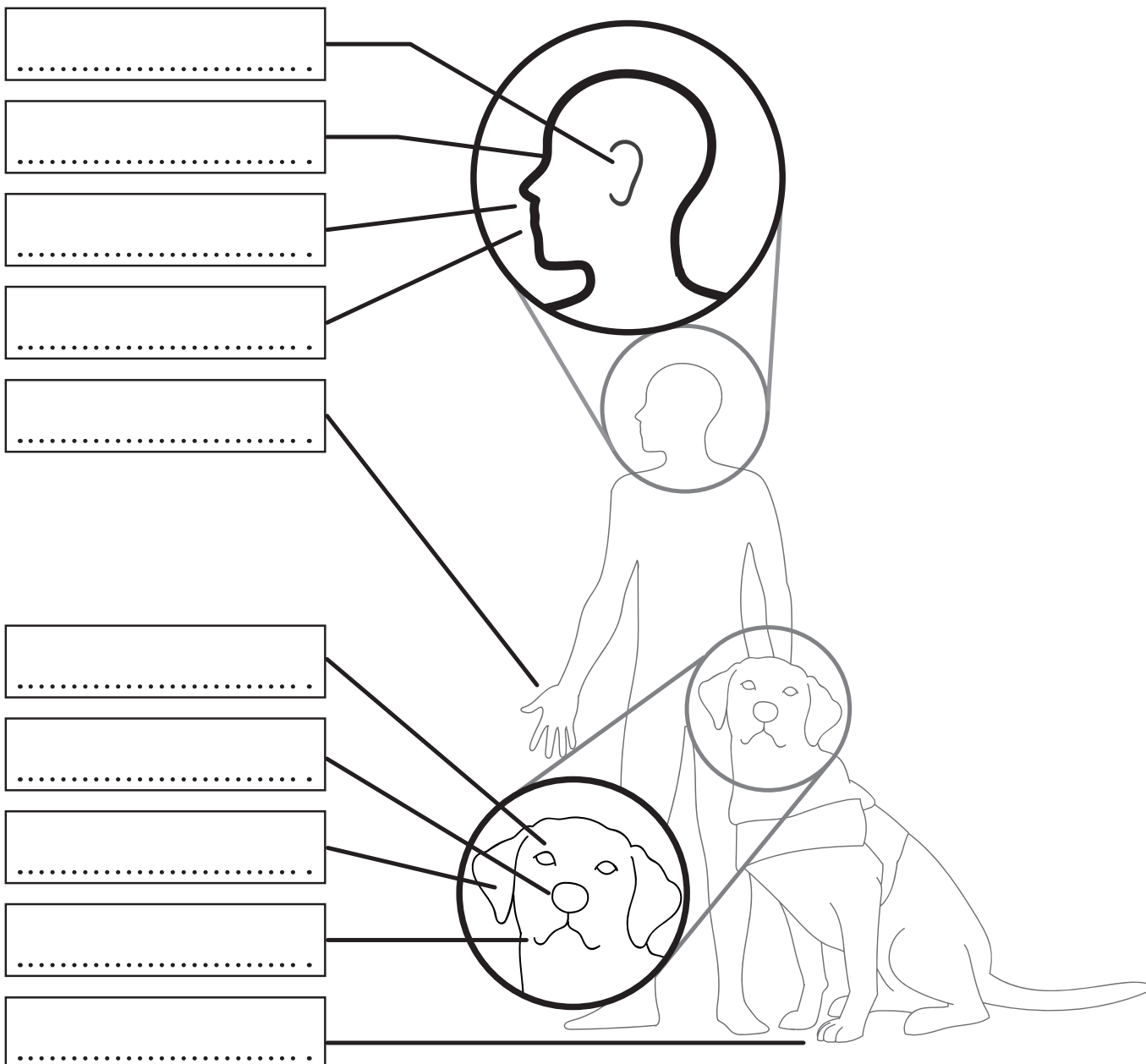
**Smell**

**Touch**

**Taste**

**Hearing**

Can you match the sense to the correct body part?



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## Activity Sheet

### Sense descriptive word game

Can you match the word to the sense?

Shiny

Loud

Fresh

Soft

Sweet

Colourful

Bright

Dark

Square

Quiet

Squeaky

Damp

Earthy

Fishy

Hard

Wet

Cold

Hot

Sour

Salty

Sight	Hearing	Taste	Touch	Smell



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## How the eye works

### Lesson Plan:

#### Introduction

On the board or a flipchart write the following colour titles: brown, blue, grey, hazel, green. Explain to children that the coloured part of the eye is called the iris and eyes come in different colours. Ask each child 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 class. Fact - the most common eye colour in the world is brown followed by blue!

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

Bring the groups back together. Can they tell you what the different parts of the eye are? 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.

#### Interactive Activity

Open up the interactive whiteboard activity which will show how the eye works at this link: [www.guidedogs.org.uk/schools](http://www.guidedogs.org.uk/schools)

Start by asking a child to choose the eye colour. Explain that no matter what the colour is, it does not affect how you see. Click on the link 'Let's see what's inside your eye', this screen names the different parts of the eye. Next click on the link 'But how does it work?'

NB Dragging the slider at the top left hand corner of the screen will show how light affects the pupil, which will get larger or smaller depending on the amount of light. Follow the stages from 1-4.

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 round.

**Ask for a volunteer to come out and explain the 1st step of how the eye works. Repeat steps 2, 3 and 4 with different volunteers.**



# Make Sense

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### Activity Idea 1

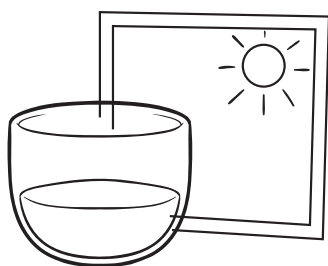
Younger/less able children use Resource sheet – inside the eye. This is a simple diagram of the eye with empty boxes. They should write the correct word onto each label.

### Activity Idea 2

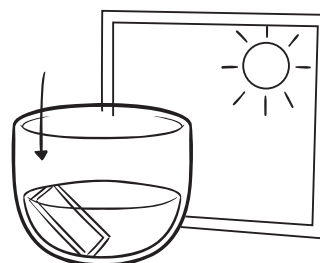
Older/ more able children imagine they are teaching a younger brother or sister about how the eye works. They should keep all diagrams and text simple. Keep the whiteboard activity live so they can refer back to it.

### Activity Idea 3

Talk about optical illusions. Ask if anybody can explain what it is. Explain that our brains are tricked into seeing things that may or may not be real. A rainbow is an optical illusion. Make a rainbow, you will need some sunshine, a small hand mirror, a bowl, a sheet of white paper and water.



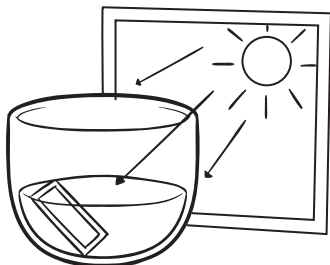
- 1 Fill the bowl with water by a sunny window.



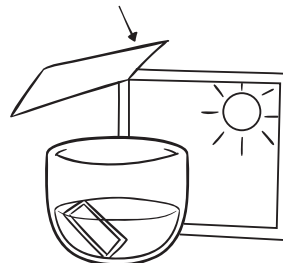
- 2 Stand the mirror in the bowl by resting the top of it against the side of the bowl.

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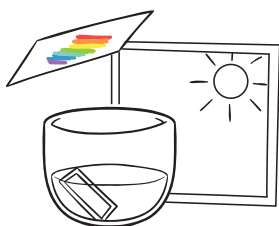
## Finding the way through sensory play



- 3** Let the sun shine onto the water and the mirror.



- 4** Hold the sheet of paper above the bowl.



- 5** You should see a rainbow. Can the children explain where it has come from?

## Plenary

Ask volunteers to come out and act out how the eye works e.g. you will need the light, pupil, iris, an object to show the image at the back of the eyeball, the electrical signal which travels along the optic nerve and then the brain that receives the message and makes the image the right way round.

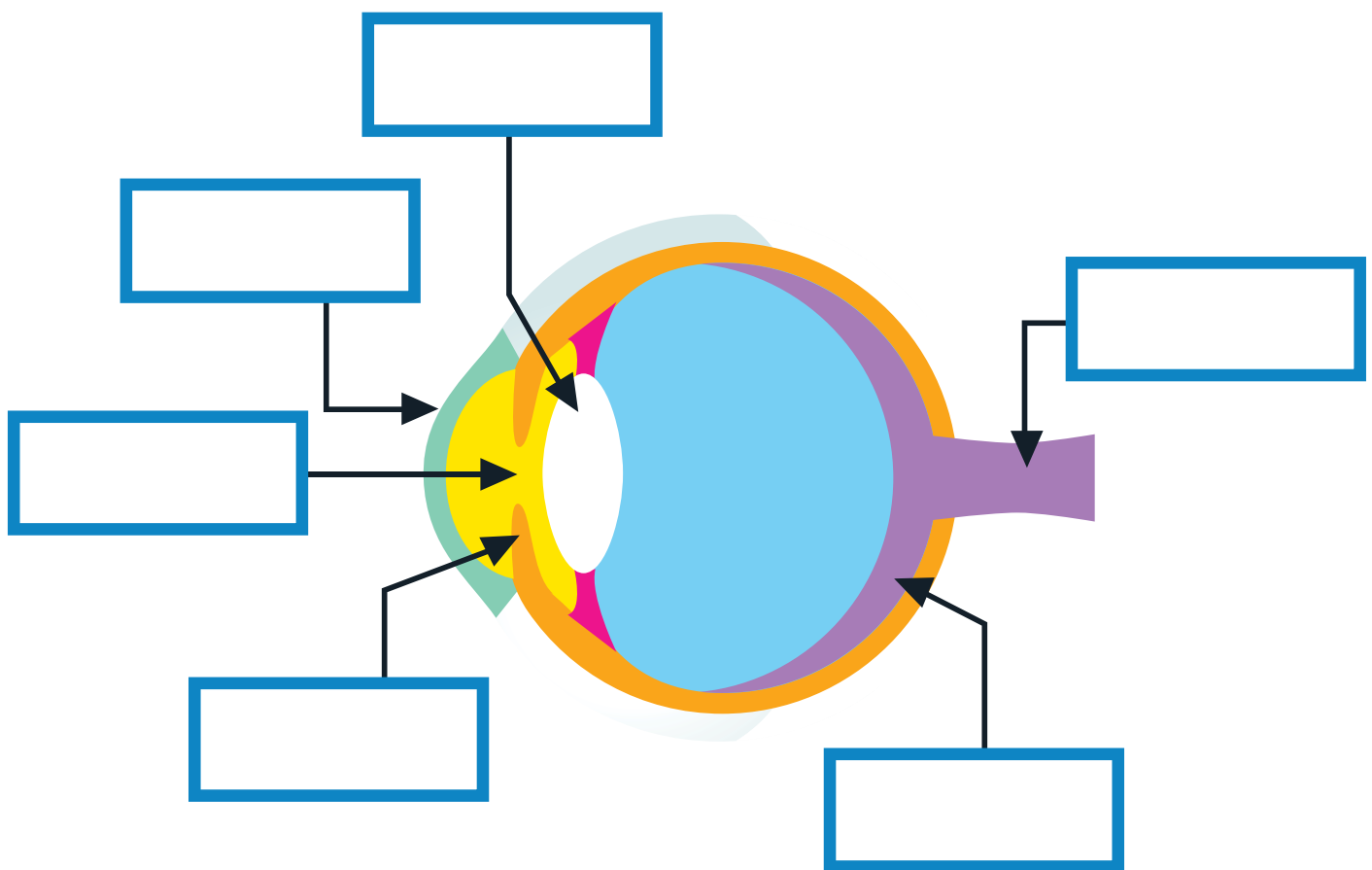
## Home activity

Children take home a copy of the Resource sheet - optical illusions. More able children might find more examples of illusions on the internet, in magazines and newspapers.

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## Resource sheet - Inside the eye



Cornea

Pupil

Iris

Optic nerve

Retina

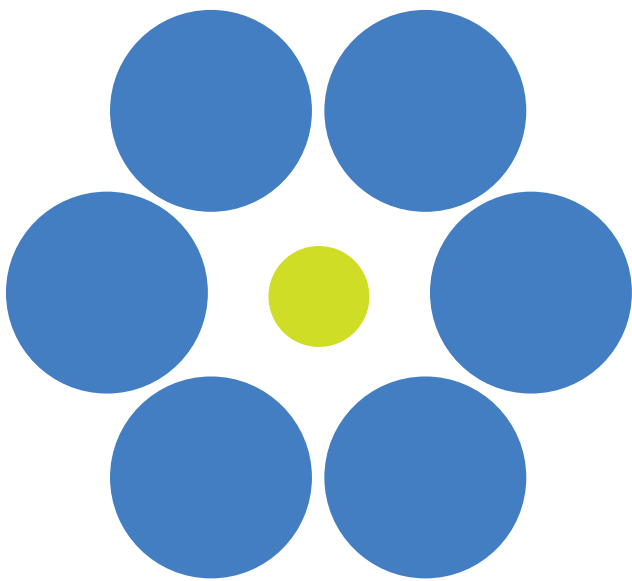
Lens

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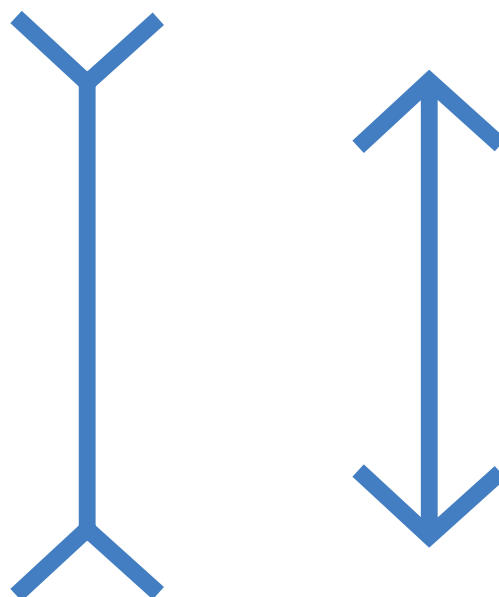
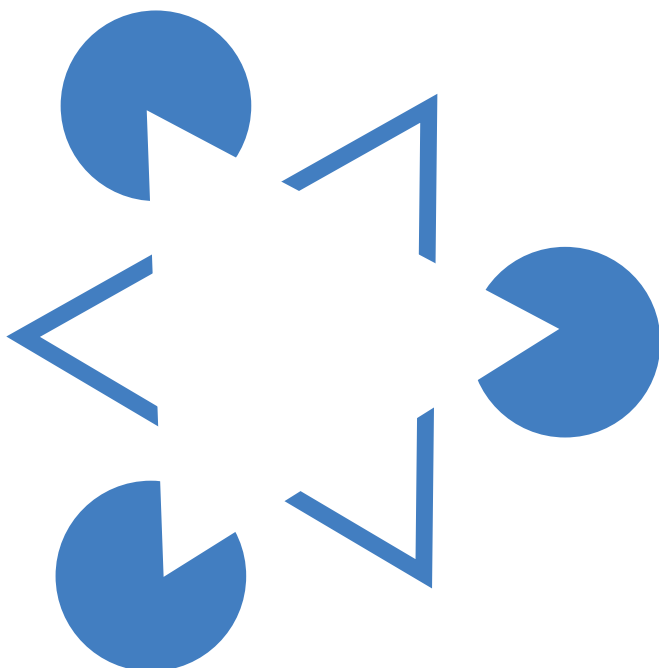
## Resource sheet - optical illusions

Are the centre circles exactly the same size as each other?



The Kanizsa Triangle is an optical illusion in which a triangle is perceived even though it is not actually there.

Are these lines the same size?



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## How other people see

### Lesson Plan:

#### Introduction

Explain to children that sometimes eyes don't work the way they should. Recap on the previous resource and re-visit the process of how the eye works. Looking at the diagrams it is easy to see that something can go wrong in the process. Ask children if they can think of any ways that would affect a person's sight. They might have personal experiences to share. Make a list and display.

Go back to the interactive on how the eye works and explain that sometimes parts of the eye don't form properly before a baby is even born. The eye may look okay but the brain may have trouble processing the information as it is sent through the optic nerve. Sometimes the optic nerve doesn't work properly and then the child's brain doesn't get the message needed for the child to see.

Some people may be blind in one eye or both eyes. Blindness can be genetic or inherited – which means it can be passed down from a parents genes.

Some people lose their sight because they have had an accident and their eye has been damaged.

Some people have problems with their sight as the result of an illness. Other people may have problems as they grow old and parts of their eye stop working properly.

#### Activity Idea 1 - The blindfold obstacle course

This is a practical session to help children understand and emphasise with the issues that some people who have problems with their eyesight face. Set up an obstacle course in the corner of the classroom. Ask volunteers to come out one at a time to move around the course from start to finish and time them. Record times. How did the volunteer feel? What words would describe them best e.g. confident, agile, ease, comfortable etc. Record feelings.

Repeat this activity, however this time blindfold the volunteer, choose someone who has already done the course previously so they can compare the experience. Help them to find the start of the course and be on hand so they don't have an accident! Time them again. Take the blindfold off and discuss the difficulties. How did the volunteer feel this time?

Repeat this activity substituting the blindfold for one of the samples from the range of Sim specs if you have some.



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### Activity Idea 1: Sim specs

Print out copies of the template (enough for each child and a few spares) using the acetate sheet sent in your pack.

Explain that they are going to experience different eye conditions.

Split the class into groups.

Before giving out the acetates, explain that each one depicts a different eye condition. Read out the name of each condition as you give it out to the group.

Explain that when placed into their sim specs frame, they will get an insight into how their sight could be affected if they had this particular condition.

Follow the instructions to make the individual sim spec frames and ask the children to take turns to insert the acetate and perform simple tasks.

When all members of the group have had a turn, ask them to discuss the following:

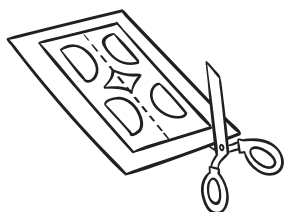
How did they feel?

How was their sight affected?

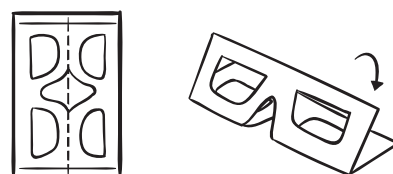
How might it change their day to day lives?

Groups then feedback to the rest of the class.

### How to make Sim specs



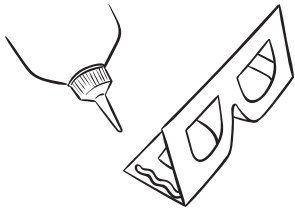
- 1 Cut out the template (page 16) and then carefully cut out the shaded areas. Place a lump of plasticene beneath the shaded area you want to cut out and pierce the front with a very sharp pencil or a pair of scissors. The point will go into the plasticene and not in your hand!



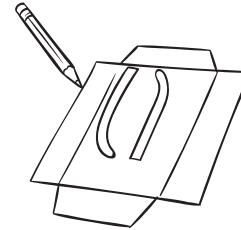
- 2 Once pierced, carefully cut out each shaded area. When finished, fold along the dotted line. This is where the simulated eye lenses will fit (between the two sheets of paper).

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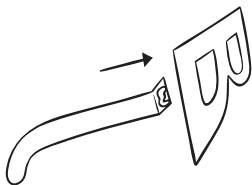
## Finding the way through sensory play



- 3** Place a small amount of glue along each side edge of the frame or fasten with sticky tape (so the lenses won't fall out!). Make sure you don't glue the top, this is where the specs will slide in.



- 4** Now make the arms. Cut out the pair of arms and draw around them onto the back of an empty cereal packet. Cut them out and fold back along the dotted line.



- 5** Use sticky tape to fix one arm to each side of the frame. Make sure they are attached the right way up so they fit onto your ears.

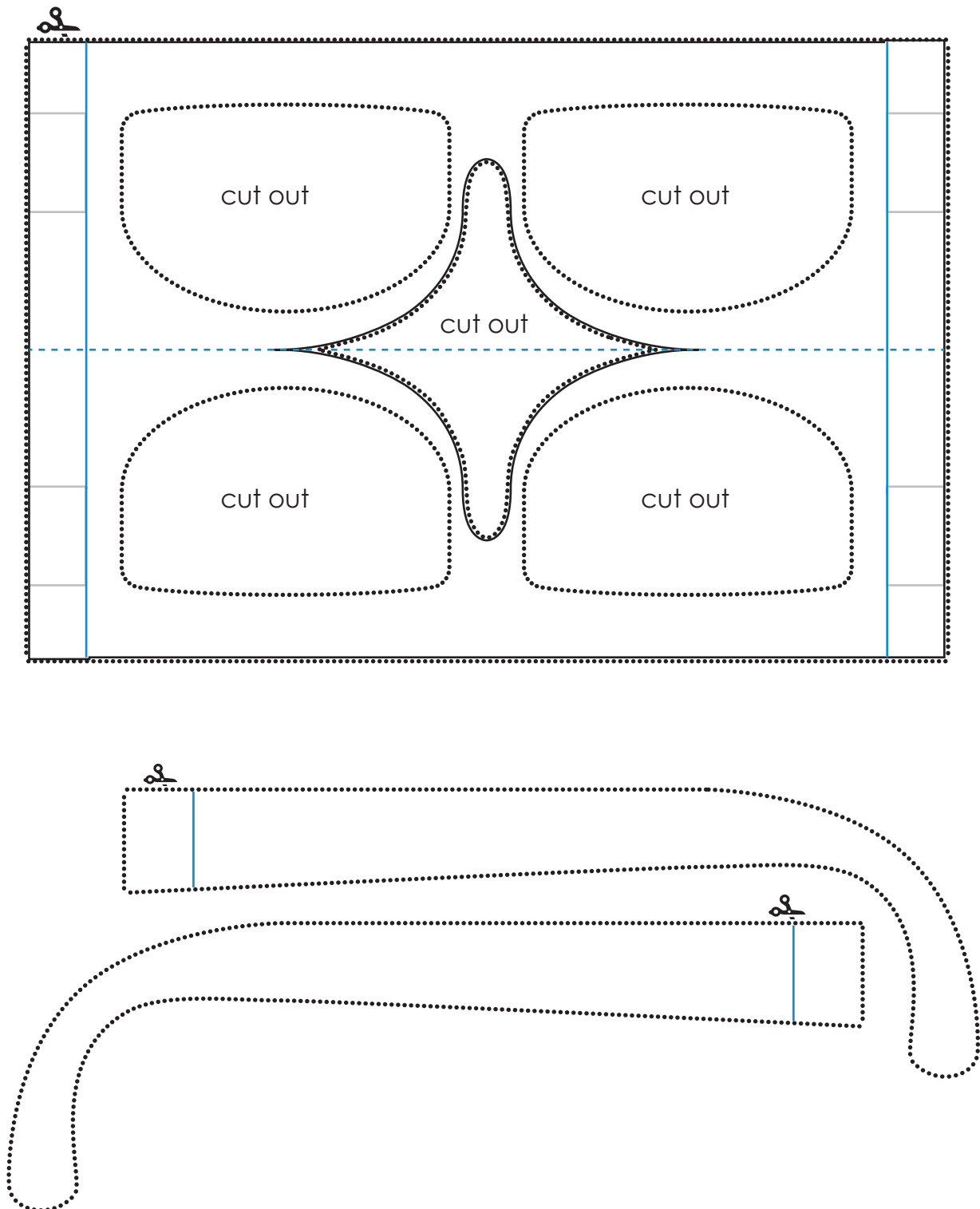


- 6** You are now ready to use your sim specs and experience the different eye conditions.

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## Sim specs Template



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### Activity Idea 2

This could either be a group or whole class activity. The activity is the same however it is done. A volunteer is blindfolded or wears a pair of the Simulation spectacles. Another member of the group or class acts as the guide and gives the volunteer very clear instructions /directions so they are able to walk them from point A to B. Repeat this activity with different pairs of children so that several get the opportunity to be the guide or the one guiding.

#### **Bring the class back together and discuss the following:**

To the volunteer:

- How did you feel?
- Was anything easy?
- What was difficult?
- Were the directions clear and easy to follow?
- What suggestions would you give to the person who was helping give you directions

To the child giving directions:

- How easy was it to give directions?
- Was it easy or difficult to keep instructions simple?
- Did the volunteer find your directions easy to follow?
- What would you say or do different the next time?

### Activity Idea 3

Resource sheet – be a guide. Explain to children that they should imagine they are guiding a visually impaired friend to their own home. The sheet shows a simple plan of a town and follows the journey of your friend who is coming to visit you at your house.

Starting at point A you should describe the journey in detail following the route shown. Remember to remind them to use directional language e.g. move forward xx steps (check out the length of a step in the key section.) Make sure children can differentiate between their right and left so they can explain which way to go at a corner.

### Activity Idea 4

Invite the local optician to come into school and explain what happens when a child has their eyes tested. Ask children to prepare some questions to ask him/her before they arrive.

### Plenary

Think about the activities we have done today. We were trying to find out how it would feel if we couldn't see. We have 5 senses: sight, touch, taste, hearing and smell. Did we use more of our other senses as an aid and if so, which did you think was the most important or helpful?

### Home Activity

Children ask parents/carers about a visit to the optician. Can they find their local optician and the

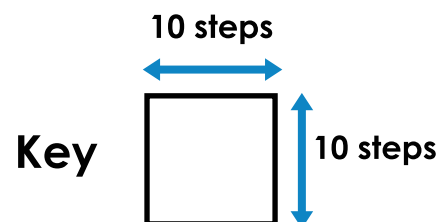
name and address? Thinking back to the activity what types of eye problems can an optician detect?

### Alternative Home Activity

Alternatively ask the children to look for information on [www.guidedogs.org.uk](http://www.guidedogs.org.uk) to find out about foods that we should eat to help to keep our eyes healthy.

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Help the guide dog take his/her owner home. Use the Key, write down direction to reach the house, e.g. walk in a straight line for 30 steps, stop, turn right...





# Make Sense

Finding the way through sensory play

## Overview of visual impairments

### teacher information

Most of us have good eyesight but how many take it for granted? Having regular eyesight tests makes sure that any possible problems are found quickly and dealt with in time to save sight.

Of course as people get older their body can start to wear out and they can develop problems with their eyesight. Sometimes people are born with a hereditary problem that has been passed on through their parent's genes.

Each of these impairments is explained in detail on

**[www.guidedogs.org.uk/whatwedo/eyehealth/eye-health-and-eye-tests/eye-conditions](http://www.guidedogs.org.uk/whatwedo/eyehealth/eye-health-and-eye-tests/eye-conditions)**

### Myopic

Also known as short sightedness. People are able to see things close to them but they look blurred in the distance. So they may not be able to see the number of a bus, or writing on the whiteboard clearly. However vision can be corrected with glasses.

### Glaucoma

Regular eyesight tests are essential in identifying this condition as people are not always aware they have a problem until it is too late. Chronic glaucoma develops very slowly, and because of this the brain gets used to the loss of vision and adjusts itself accordingly so the person doesn't experience any vision loss. It is also painless.

What happens is that the optic nerve gets damaged and this stops information passing from the retina to the brain because of raised pressure in the eye. Glaucoma cannot be cured but if found in time, it can be treated and its progression stopped in its tracks!

### Cataracts

More often found in older people. They are caused by a clouding of the lens in the eyewhich in turn causes blurred or dimming of the vision.

Cataracts can be treated and removed through surgery. Patients usually don't have to stay in hospital but can be treated under a local anaesthetic and have their cloudy lens replaced with a plastic one.

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### Macular degeneration

This also is more often found in older people. What happens is the part of the retina that helps you see straight ahead (the macula), deteriorates gradually over a period of time. It is also the part of the eye that detects detail and colour. There are 2 types of macular degeneration:

**Wet:** People with the wet type will notice that straight lines look wavy and become distorted. This type deteriorates quickly.

**Dry:** Similar to wet but is slower to progress. Over time reading aids e.g. magnifying glasses may be necessary.

### Retinitis pigmentosa

This is a hereditary condition, passed through the genes. The retina has 2 main layers, in this condition some of the cells from one layer settle into the other layer causing patches of dark colouring which obscure vision and can affect either the central or peripheral (edge) vision depending on where the pigment cells settle. There is no treatment for this condition at the moment but research is looking into some of the genes that cause this disease and work is currently underway - by introducing a correcting genetic material into appropriate parts of the eye.

### Diabetic retinopathy

Some people have diabetes, some of these people may develop Diabetic retinopathy. What happens is the blood vessels in the retina leak and sometimes lead to the area swelling which makes vision blurred. This can deteriorate as it progresses. However a lot can be done to control this condition and prevent it from developing further. It is important that diabetics keep their blood sugar levels stable, maintain a good diet and exercise regularly. Regular eye tests are also advisable.

Symptoms include blurred vision, floaters and flashes which can come and go. Eyesight can also deteriorate and then get better- all in the same day! So sometimes symptoms are ignored and not checked by an optician, which can have serious consequences for their sight. If caught early on, 90% of the people with Diabetic retinopathy can be prevented from losing their sight.

# Make Sense

Finding the way through sensory play

GUIDE  
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