

Finding out about Sight Loss

A resource for Primary School pupils from 1st to 6th class

What do you know about sight loss?



Finding out about Braille

What can people with sight loss see?



NCBI

**Working for People
with Sight Loss**



About NCBI

NCBI is a not for profit charitable organisation which offers support and services nationwide to people experiencing difficulties with their eyesight.

About 18 per cent of people using NCBI's services are completely blind, while 82 per cent have different levels of usable vision. We were established in 1931 to promote the full independence of people who are blind or vision impaired and now provide a range of services to over 14,000 people.

Words used to describe blindness and vision impairment

This resource is called "Finding out about Sight Loss" to highlight the fact that the majority of people who use NCBI's services are not completely blind, but actually have some level of vision, although their sight may be quite limited. The term vision impaired is often used to describe people living with sight loss. However, this term may not be easily understood by younger children, who may find it easier to think about people who have very low vision, or bad eyesight.

Contents:

- Lesson 1:** What do you know about sight loss?
- Lesson 2:** What can people with sight loss see?
- Lesson 3:** How do people who are blind get around and manage everyday tasks?
- Lesson 4:** Protecting your eyes.
- Lesson 5:** Finding out about Braille.

Lesson 1: What do you know about sight loss?

Suitable subjects:

- English – Oral Language – Emotional and imaginative development through language
- SPHE – Myself and others – Relating to others

Key points:

- Most people who are “blind” can see something.
- People with low vision are the same as sighted people, except that they can't see very well.
- People who are blind or vision impaired can do almost everything that sighted people can do but they may need some help.

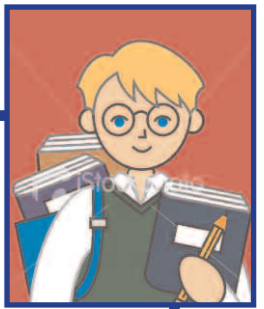
Method:

1. First ask the children to discuss, using the pair and share discussion method, what they know about blindness by asking some of the following questions:
 - How much can people with low vision see?
 - What do people who are blind look like?
 - Are people who have bad eyesight different from you and me?
 - Do people who are blind or have very bad eyesight go to school?
 - Are all people who are blind the same?
 - Are people who are blind happy or sad?
2. Ask the children to answer the true or false questions in the class activities section for this lesson, perhaps in pairs. The answers are below.

Answers:

1. False. Most people acquire sight loss later in life.
2. False. Most people who are blind are not actually totally blind.
3. True. People who are blind or vision impaired read books in Braille, listen to them on CD or use magnifiers to make print larger.
4. True.
5. False. A small proportion of people who are blind use guide dogs. Others use a white cane.
6. False. Many people who are blind or vision impaired live alone and run their own home.
7. False. People who are blind or vision impaired can play the same sports as everyone else, with some adaptations.
8. False. You can use the same language as you do when talking to a sighted person. However, take care not to point to something without giving verbal instructions. It's ok to say “see you later” too.

Discuss the answers and explain that most people would have the same misconceptions about blindness because they do not know much about it. Ask the class what they have learned and write key words on the board.



Activity 1

True or False

- | | True | False |
|---|--------------------------|--------------------------|
| 1. Most blind people are born blind. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Most people who are blind cannot see anything at all. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. People who are blind or have very bad eyesight can read the same books as you and I. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Sighted people can learn how to help someone who is blind. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Most blind people use guide dogs. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. People who are blind cannot live alone. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. People who are blind cannot play sports. | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. When talking to someone who is blind you should not use words like “see” and “look”. | <input type="checkbox"/> | <input type="checkbox"/> |



Lesson 2: What can people with sight loss see?

Suitable subjects:

- Science – Living things – Myself/Human life
- English – Oral Language – Emotional and imaginative development through language
- SPHE – Myself and others – Relating to Others

Resources: Photos representing different eye conditions on CD.

Key points:

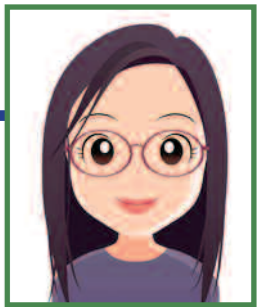
- Most people who are “blind” can see something, although their vision may be very limited.
- People with very low vision can see different things.
- Nobody has perfect vision, even people who do not wear glasses.

Method:

1. Take the class through what people with different levels of vision can see. The images show how people with different eye conditions see the same scene. Talk about the differences and what difficulties the different eye conditions present. Would someone who has the condition shown in the second photo be able to read the newspaper, for example, or watch TV?
2. Explain that nobody has perfect vision, none of us can see something miles away. Even people with very good vision use microscopes and telescopes to see better. Having poor eyesight is not a failing.
3. Talk about why people wear glasses. Some people have problems seeing things up close, like reading a book, and some people cannot see things far away, like the blackboard. Glasses help people to see better.
4. Talk about other characteristics, like height, hair colour, eye colour. It doesn't matter if people wear glasses, we are all the same.



Activity 2



This is a picture of Simon and David. This is how someone with good sight would see the picture. Now close your eyes. What can you see? Do you think this is what it is like to be blind?



Take a good look at the picture and close your eyes again. What can you remember about the picture? How many footballs are there? What colour are they?

People who are blind or vision impaired will have a different view of Simon and David than sighted people.

1. Some people have a large spot in the centre of their vision.



2. Damaged blood vessels can cause damage to the eye.



3. Some people have tunnel vision, which means they can only see with the centre of their eye.



Not all people who have problems with their sight see things the same.

Lesson 3: How do people who are blind get around and manage everyday tasks?

Suitable subjects:

- SPHE – Myself and the wider world
- English – Oral Language – Emotional and imaginative development through language

Resources: Photos of mobility and gadgets on CD.

Key points:

- People who are blind or have low vision use different methods to move about independently. Each person finds a way that suits them best.
- There are many different aids that can help people who are blind carry out everyday tasks on their own.

Method:

Explain the different mobility aids that people might use, which are outlined below.

White cane

Some people who are blind might use a white cane to help them get around by using it to feel what is in front of them as they walk. Special paving stones with bumps on them are used at pedestrian crossings so that people who are blind can feel the bumps underfoot and know that they are at a crossing.

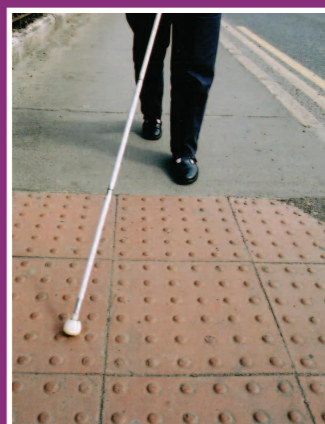
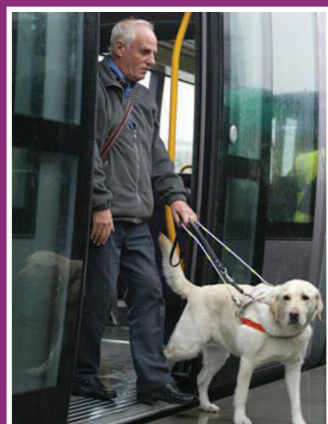
Ask the class if they have ever heard beeping noises at pedestrian crossings? Why do they think these noises are there? How would a blind person know that the “green man” had appeared without noise?

Guide Dog

Other people may choose to use a guide dog to help them get around. The dog is trained to obey commands from his owner and to stop at kerbs.

Sighted guide

It can be difficult for a blind person to find their way around an unfamiliar place so they may wish to follow a sighted person by taking hold of their arm.



How do people with low vision manage everyday tasks?

Large print is very helpful for people who have very bad eyesight. Magnifiers enlarge text to make it easier to read books, letters and see photographs. Software on a computer can magnify the text on a computer screen to make it easier to see.

Sound is also very important. Talking watches and clocks help people to keep track of the time and books are available on CD so that people can listen to them.

Activity 3



Draw these objects into the picture to show how leaving your bike or skateboard lying on the path could be dangerous for a person who cannot see them. Wheelie bins can also be dangerous if left in the middle of the path. Draw this into the picture too.

Lesson 4: Protecting your eyes

Suitable subjects:

- Science – Living things – Myself/Human Life
- SPHE – Myself - Taking care of my body or Safety and protection
- Drama – To explore feelings, knowledge and ideas, leading to understanding

Key points:

- Eyes are very important but they are delicate.
- We can all take steps to protect our eyes.

Method:

1. Talk to the class about the ways in which the eyes can get damaged. Working in pairs, ask the class to discuss dangers and to make suggestions, which can be written on the board. Potential hazards may include:
 - Chemicals used at home
 - The sun
 - Sharp objects, like scissors or knives
 - Throwing stones or playing with sticks
 - Playing sports
 - Fireworks
 - Smoking
2. Talk about ways to prevent damage to your eyes by any of the things the class has listed. For example, wearing sunglasses, wearing goggles when mowing the lawn and wearing protective eye and headgear when playing sports.
3. Discuss other things children can do to protect their eyesight, including eating well and not taking up smoking.

Ask the class to act out a drama of someone who injures their eyes. How are they before the accident, what happens to them to cause damage to their eyes and how are they after the damage to their sight?

Older classes might like to conduct an online search to find out more about protecting their eyes.

Activity 4



Which of these images shows how you can damage your eyes?
Put a D next to the images that show how you can damage your eyes.

Which of these images show how you can protect your eyes?
Put a P next to the images that show how you can protect your eyes.



Lesson 5: Finding out about Braille

Suitable subjects:

- History – Story – Stories/Stories from the lives of people in the past
- Visual arts – Drawing/Making Drawings

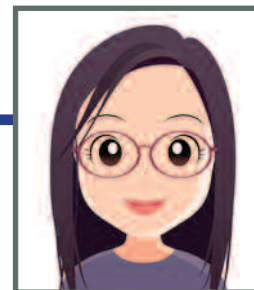
Resources: “This is Braille” leaflet, History of Louis Braille on CD.

Key points:

- Some people who are blind use their sense of touch to read Braille.
- Braille was invented by Louis Braille, who was blind.
- Braille is used in almost every country in the world.

Method:

1. Explain that people who are blind read and write using their sense of touch. By running their fingertips over Braille dots, they can read letters and numbers, making it easier to read school books, leisure books, letters and bills.
2. Pass around “This is Braille” so the class can see an example of Braille and look at and feel the alphabet.
3. Talk about how useful Braille is. How can people who are blind tell the difference between a tin of peas and a tin of beans for example? They can put a Braille label on each tin so they will not get them mixed up. Ask the class if they can think of all the ways people can use Braille. Some of the uses are included below, can the class come up with more?
 - Reading school books
 - Reading books for pleasure, like Harry Potter
 - Labelling food tins at home
 - Labelling CDs and DVDs so they don’t get mixed up
 - Reading bills and letters in the post
 - Reading numbers in a lift to select the correct floor
 - Reading the name and instructions on medicine boxes
4. Ask the class to design a tactile picture using different materials, like leaves, sequins, sea shells, egg shells and anything else they can find at home.



Activity 5

What is Braille?

Braille is a system of reading and writing using raised dots. Braille is read by touch.

The Braille alphabet

Each letter of the alphabet has its own special symbol. The symbols are made by arranging dots in the Braille cell, which is made up of six dots. Different dots are raised to represent different letters or numbers. Each of the six dots has a number to help identify which one you are talking about.

The space that six dots occupy is known as a Braille cell

1	4	A	B	C	D	E	F	G	H	I	J	K	L	M
2	5	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
3	6													

So, for example: The letter 'A' is one raised dot in place one.
 The letter 'B' is two raised dots in places one and two.
 The letter 'C' is two raised dots in places one and four.

Can you write your name in Braille?

○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○
 ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○
 ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○

Try spelling the following objects in Braille

Car	Bus	Dog	Cat
○○ ○○ ○○	○○ ○○ ○○	○○ ○○ ○○	○○ ○○ ○○
○○ ○○ ○○	○○ ○○ ○○	○○ ○○ ○○	○○ ○○ ○○
○○ ○○ ○○	○○ ○○ ○○	○○ ○○ ○○	○○ ○○ ○○

The History of Louis Braille



Louis Braille was born in a small town near Paris on 4th January 1809. His father was a cobbler and made saddles for horses. Louis loved to help his

father in his workshop. One day, when he was only 3-years-old, he went into the workshop on his own and played with his father's tools. Unfortunately, Louis cut his eye badly with one of these tools. This caused an infection, which spread to his other eye and he lost all of his sight. His parents were very worried about him.

Louis went to the village school for two years, where he learned by listening. At the age of 10 he got a scholarship to go to a school for blind boys in Paris, one of the first in the world. At the school, he was taught practical skills like slipper making. He became very good at maths and science and learned to play the organ. He was also taught to read but not to write. The letters he read were raised on a page so that he could feel the outline of each letter but it was hard to tell one letter from another.

In 1821, a soldier named Charles Barbier de la Serre visited Louis' school to show the school children his invention, which was called "night writing". Night writing was used by

soldiers so that they could pass messages along trenches at night and Charles thought it would be useful for blind people to read and write. However, the system was too complicated.

Louis wanted to invent an easier way of reading and in 1824 he invented Braille. Braille uses a combination of six raised dots that represent each letter in the alphabet, like the dots on a domino. The letter 'A' is represented by one dot and the letter 'B' is two dots. Louis could read by running his fingers over the dots. He also developed a different code for maths and music. Louis taught all of his friends to read and write in Braille.

In 1827 the first Braille book was produced. Not only could people who are blind or vision impaired use Braille to read but they could also now write using a simple grid to make the dots.

Louis eventually became a teacher at the school. Unfortunately, he did not live to see Braille used widely. Louis died on 6th January 1852, at the age of 45. Braille was not recognised as a way of reading and writing until 1918.

Today, Braille is used throughout the world and is taught to children from an early age.

CD goes here



CD Contents

This booklet is also available on the CD should you need to print extra copies. The CD also contains some additional resources:

- The history of Louis Braille.
- Images on use of mobility aids and other appliances.
- Images representing different eye conditions.

Awareness books for primary school children

When it's hard to see by Condon, J.

Seeing things my way by Carter, A.

Take a good look by Wilson, J.

Listen for the bus - David's story by McMahon, P.

Private and confidential by Ripley, M.

My friend is blind by Edwards, N.

If you have a child with a vision impairment in your class and would like some advice on addressing these topics, please contact us for more information.

Images on page 7 courtesy of the National Eye Institute, National Institutes of Health.

Back cover

If you or someone you know is experiencing problems with their sight, NCBI can help. For more information on NCBI contact:

National Council for the Blind of Ireland

Whitworth Road,

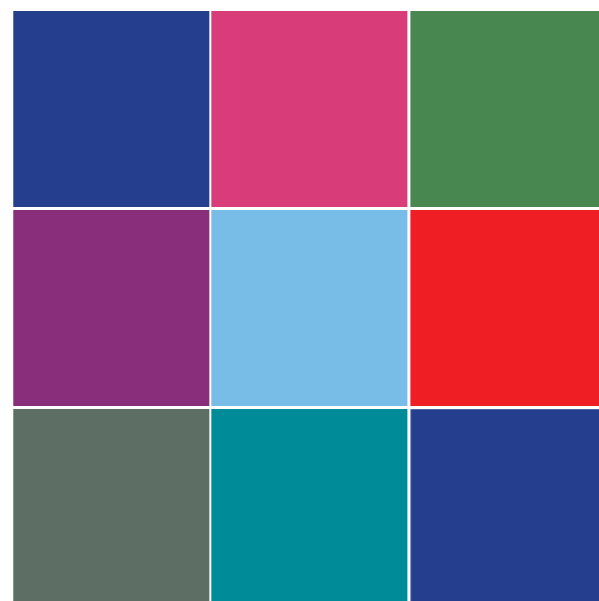
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