

# Visual Impairment Slides



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in association with N J Crews Consultancy and Training (Visual Impairment)  
& V.I.S.I.ON Erasmus + Project

## **Disclaimer:**

This project has been funded with support from the European Commission.

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## Notes for trainers:

These slides have been created by UCAN Productions with funding from the V.I.S.I.ON Erasmus + Project in April 2016. They have been made into a training resource by Nicola Wiles (N J Crews Consultancy & Training – Visual Impairment)

The slides show how people with certain eye conditions may see the same situation differently to those who are fully sighted. We can never know exactly what other people see and these slides are therefore an approximation. How people perceive an object will depend not only on what they see through their eyes, but also on how their brain interprets what is seen. People who have lost their vision in later life will have ‘visual memories’ – a bank of memories that they can draw on to help interpret what they see. People who are blind from birth will only learn from what they experience (touch / smell / hear) or what they read or are told. Some may have a combination of visual impairments that make how they see even more complicated. Some may have difficulty moving from dark areas into light and vice versa and others may not see colour, which makes contrast more important. The best way to find out what someone can see is to ask them when they are on their own and discuss with them how they would prefer to be supported.

The slides are grouped as follows:

1. Being part of a group
2. Watching a football match (following a moving object)
3. In the classroom
4. Looking at detail (a sheet of music)
5. Looking at a person (a face)
6. Seeing what you have written (a letter)

Each group of slides (situation) shows the following eye conditions:

1	Full vision	No problems – clear image, free movement, can see detail and distance	<ul style="list-style-type: none"> <li>• No eye condition present</li> <li>• Short or long sight corrected by glasses</li> </ul>
2.	Tunnel Vision	Good central vision, no peripheral (side) vision – need to scan to find the target and to move around	<ul style="list-style-type: none"> <li>• Retinitis pigmentosa</li> <li>• Glaucoma</li> </ul>
3.	Peripheral vision	Good peripheral vision (around sides) but no central vision – need to position target within clear area of vision	<ul style="list-style-type: none"> <li>• Problems with the macular (e.g. macular degeneration)</li> <li>• Stargardts</li> </ul>
4.	Patchy vision	Interrupted field of vision, resulting in missing pieces – need to position target within clear area of vision	<ul style="list-style-type: none"> <li>• Diabetic retinopathy</li> <li>• Optic atrophy</li> </ul>
5.	Blurred vision	Blurred image due to rapid eye movements (side to side / up and down / rotating) – may need time to focus	<ul style="list-style-type: none"> <li>• Nystagmus</li> </ul>
6.	Reduced visual acuity due to poor contrast / light	Difficulty in distinguishing detail and targets at a distance – may need more time and more light	<ul style="list-style-type: none"> <li>• Cataract</li> </ul>
7.	Reduced visual acuity due to too much light	Difficulty in distinguishing detail – may need blinds drawn, dark tinted glasses, sit with back to light source	<ul style="list-style-type: none"> <li>• Photophobia</li> <li>• Albinism</li> </ul>



# Being part of a group

The difficulties here may include:

- Knowing who is in the group and where they are sitting
- Knowing if someone has left or joined the group
- Knowing when to take your turn in conversation or activities
- Needing more time to access any visual material (e.g. the cards in the slides)

# Full vision



# Tunnel vision – loss of peripheral vision







**Peripheral  
vision – no  
central  
vision**





**Patchy  
vision -  
missing  
areas**



# Blurred vision - Nystagmus







**Reduced  
visual  
acuity –  
poor  
contrast**



**Reduced  
vision –  
too much  
light**



# Watching a football match (following a moving object)

The difficulties here may include:

- Tracking a fast moving object (e.g. a ball)
- Throwing , catching, co-ordinating a fast moving object
- Crossing roads with oncoming vehicles
- Depth perception with some visual impairments



# Full vision





# **Tunnel vision – loss of peripheral vision**





**Peripheral  
vision – no  
central  
vision**



# Patchy vision - missing areas





# Nystagmus

- blurred vision







**Reduced  
visual  
acuity –  
poor  
contrast**





**Reduced  
visual  
acuity –  
too much  
light**



# In the Classroom

The difficulties here may include:

- Being part of a big group
- Knowing when someone is talking to you
- The amount of light coming in at the window – it might be necessary to use blinds at the windows
- Following an activity led from the front of the room
- Accessing information on black / white / smart boards or projector screens

# Full vision



# **Tunnel vision – loss of peripheral vision**







**Peripheral  
vision – no  
central  
vision**



**Patchy  
vision -  
missing  
areas**





**Nystagmus**  
- blurred  
vision





**Reduced  
visual  
acuity –  
poor  
contrast**



**Reduced  
visual  
acuity –  
too much  
light**

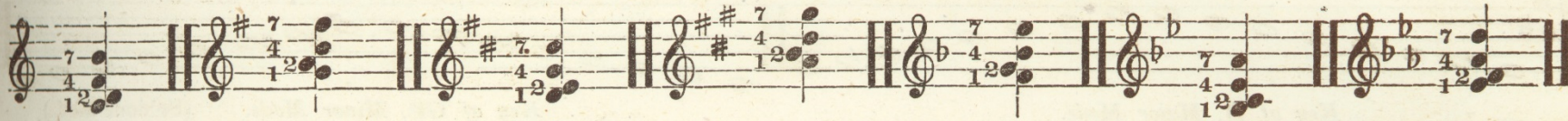


# Looking at detail (a sheet of music)

The difficulties here may include:

- Finding a specific piece of information on the sheet of paper – it will take longer and may need to be magnified or enlarged
- Confusing detail – e.g. the pencil markings and amount of information on the page
- The contrast between the printed music and the colour of the paper
- Focusing on detail for a longer period of time can be tiring and in some cases painful (causing head aches)

The Discords are 2, 4, and 7, in connection with 1. See Example.



### Qualities of the different KEYS.

C major, or the Natural Key; warlike, and well adapted to martial music.

G major, or 1 sharp; gay and sprightly, and will admit of a greater variety of subjects than any other key.

D major, or 2 sharps; grand, solemn, melancholy.

A major, or 3 sharps; plaintive, but lively.

E major, or 4 sharps same as A major.

F major, or 1 Flat; sober, thoughtful; better adapted for the Violin than any other key.

B $\flat$  major, or 2 Flats; same as F major, but more plaintive.

E $\flat$  major, or 3 Flats; similar to A major, but more soft and sweet.

### Example of the Scale in all the Keys, Major and Minor.

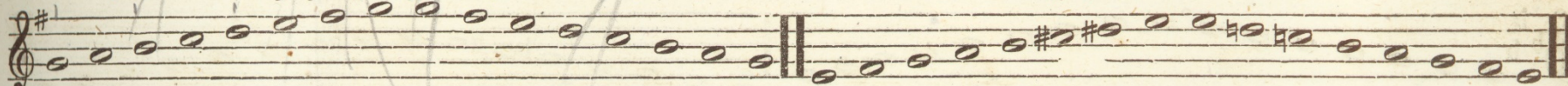
*Key of C, Major Mode.*

*Key of A, Minor Mode.*



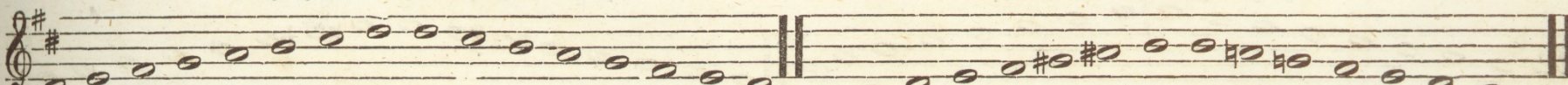
*Key of G, Major Mode.*

*Key of E, Minor Mode.*



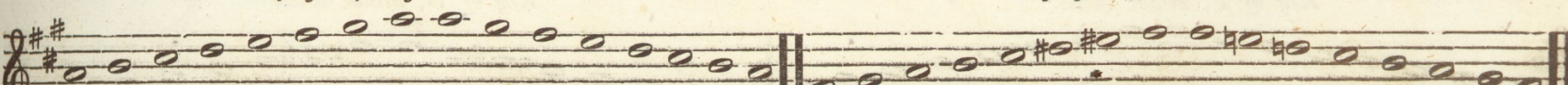
*Key of D, Major Mode.*

*Key of B, Minor Mode.*



*Key of A, Major Mode.*

*Key of F#, Minor Mode.*

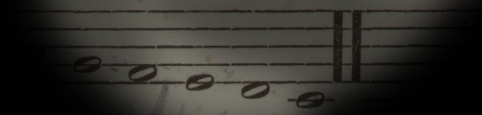


# Full vision

# Tunnel Vision – loss of peripheral vision

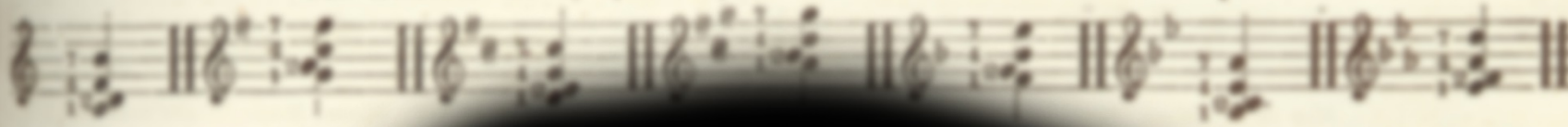
...major.  
...ful; better adapted for the Violin than  
...major, but more plaintive.  
...A major, but more soft and sweet.

**of the Scale in all the Keys, Major**



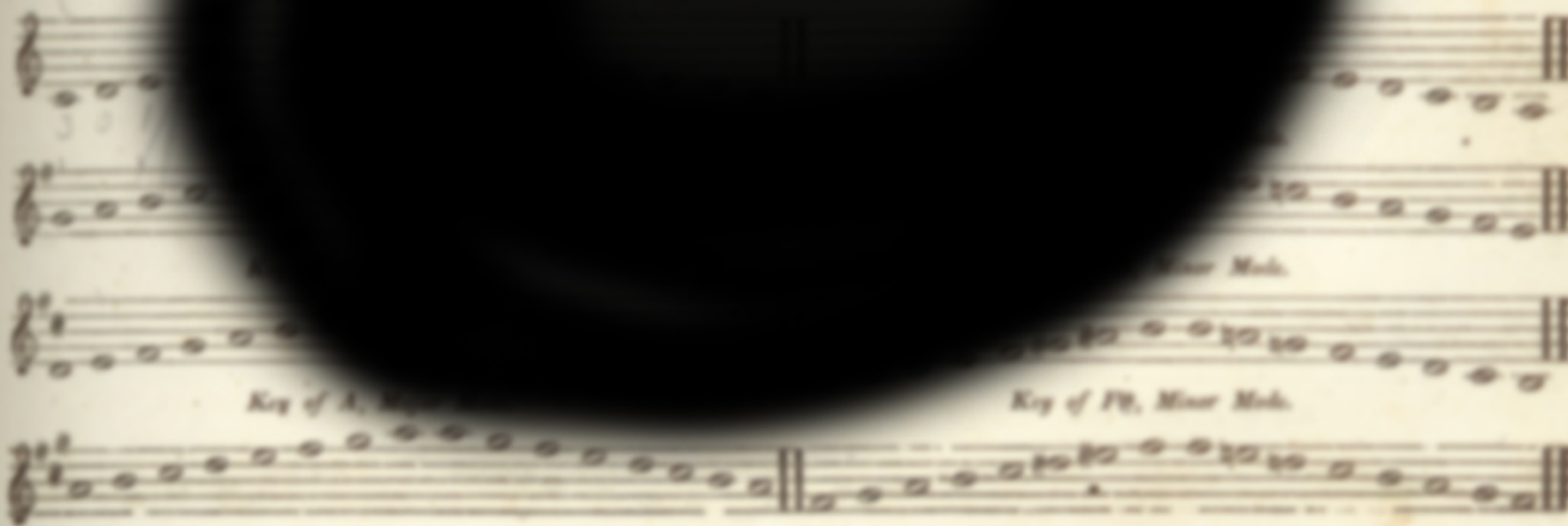


The Discords are 2, 4, and 7, in connection with 1. See Example.



C major, or the Natural Key.  
G major, or 1 sharp.  
D major, or 2 sharps.  
A major, or 3 sharps.  
E major, or 4 sharps.  
F major, or 1 flat.  
B $\flat$  major, or 2 flats.  
E $\flat$  major, or 3 flats.

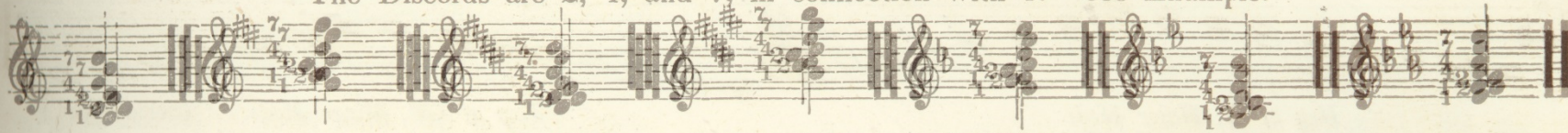
made in all the keys, the



**Peripheral  
vision – no  
central  
vision**



The Discords are 2, 4, and 7, in connection with 1. See Example.



### Qualities of the different KEYS.

C major, or the Natural Key; warlike, and well adapted to martial music.  
 G major, or 1 sharp; gay and sprightly, and will admit of a greater variety of subjects than any other key.  
 D major, or 2 sharps; grand, solemn, melancholy.  
 A major, or 3 sharps; plaintive, but lively.  
 E major, or 4 sharps same as A major.  
 F major, or 1 Flat; sober, thoughtful; better adapted for the Violin than any other key.  
 Bb major, or 2 Flats; same as F major, but more plaintive.  
 Eb major, or 3 Flats; similar to A major, but more soft and sweet.

### Example of the Scale in all the Keys, Major and Minor.

Key of C, Major Mode.

Key of A, Minor Mode.

Key of G, Major Mode.

Key of E, Minor Mode.

Key of D, Major Mode.

Key of B, Minor Mode.

Key of A, Major Mode.

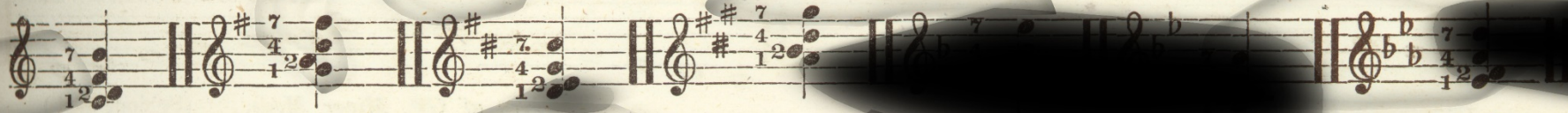
Key of F#, Minor Mode.



**Nystagmus**  
 - blurred  
 vision



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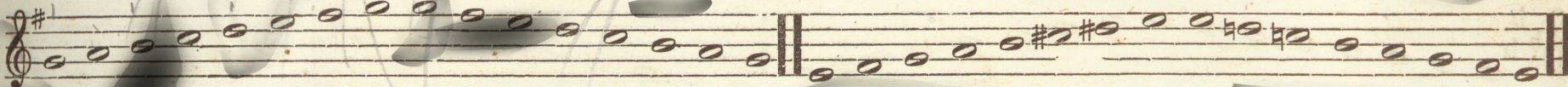
Key of C, Major Mode.

Key of A, Minor Mode.



Key of G, Major Mode.

Key of E, Minor Mode.



Key of D, Major Mode.

Key of B, Minor Mode.



Key of A, Major Mode.

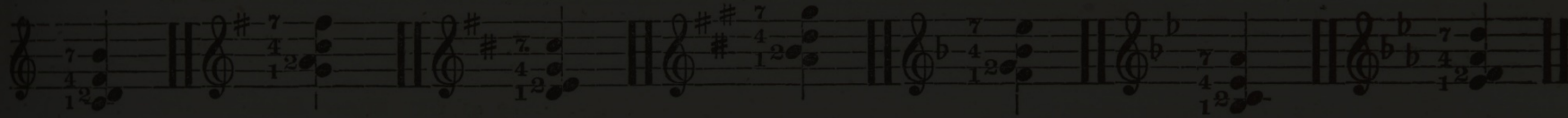
Key of F $\sharp$ , Minor Mode.



Patchy  
vision-  
missing  
areas



The Discords are 2, 4, and 7, in connection with 1. See Example.



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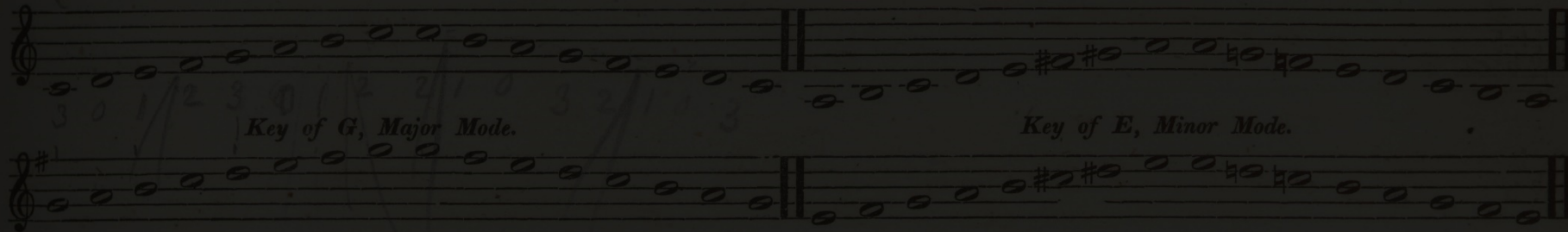
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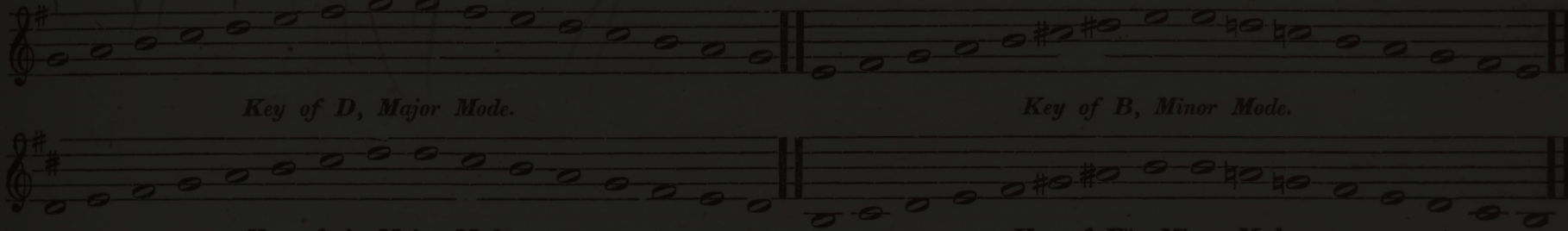
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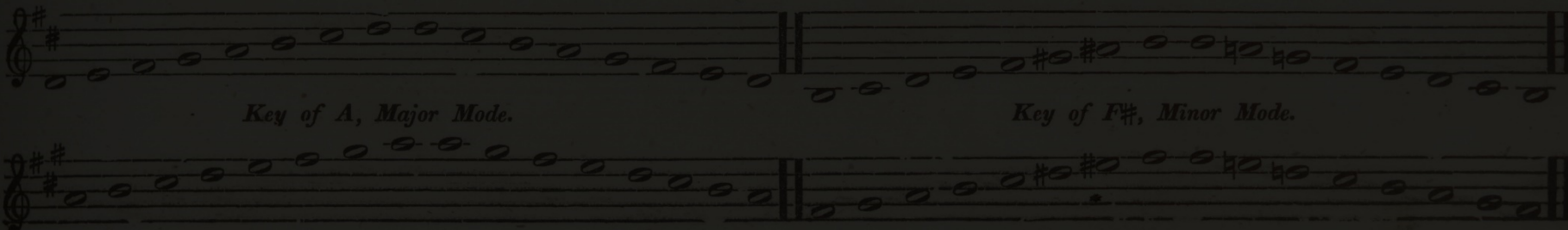
*Key of G, Major Mode.*

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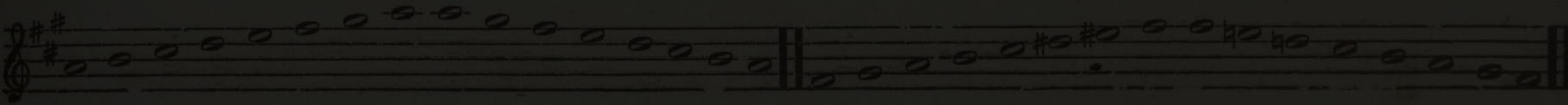
*Key of D, Major Mode.*

*Key of B, Minor Mode.*



*Key of A, Major Mode.*

*Key of F#, Minor Mode.*



Reduced  
visual  
acuity –  
poor  
contrast

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*Key of B, Minor Mode.*



*Key of A, Major Mode.*

*Key of F#, Minor Mode.*



**Reduced  
visual  
acuity –  
too much  
light**



# Looking at a person (a face)

The difficulties here may include:

- Recognising a friend
- Seeing and understanding the facial expression
- Seeing and understanding body language




**Full vision**





**Tunnel  
vision –  
loss of  
peripheral  
vision**



**Peripheral  
vision – no  
central  
vision**





**Patchy  
vision -  
missing  
areas**



**Nystagmus**  
- blurred  
vision





**Reduced  
visual  
acuity –  
poor  
contrast**



**Reduced  
visual  
acuity –  
too much  
light**



# Seeing what you have written (a letter)

The difficulties here may include:

- Keeping your writing straight on the line
- Being able to write quickly enough to keep up
- Not being able to read back what you have written
- Finding your place when you want to add something to what you have already written
- Changing focus from distance (white board) to near (paper to write on)
- Concentrating on both writing and listening

# Full vision





**Tunnel  
vision –  
loss of  
peripheral  
vision**



**Peripheral  
vision – no  
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**Patchy  
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# Nystagmus

- blurred vision







**Reduced  
visual  
acuity –  
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**Reduced  
visual  
acuity –  
too much  
light**



# When working with a person with a visual impairment remember:

- BIG, **BOLD** and **BRIGHT** – the contrast, colour and size of the materials you use are important.
- Consider the environment – the lighting (too much or too little), the acoustics (sounds and echoes), the ‘clutter’ (unnecessary equipment) that may get in their way.
- Speak directly to them - not to their helper - and use their name before giving an instruction.
- Explain clearly what you need them to do – and check that they understand.
- Don’t use abstract words like ‘over there ...’
- Don’t push or pull them around without first explaining what they need to do, or what you need them to do.
- If you don’t know how to do something, ask them how to do it - they are the experts!