Appendix I

Terminology in relation to vision impairment

Visual acuity	Acuity is the term given to the sharpness of the overall image seen by an individual. Both distance and near vision can be affected by poor acuity, but not necessarily to the same degree. Some learners may be able to see quite small print on a page but be unable to see at a distance, while for others the opposite may be true. Note: Visual acuity alone does not tell how a person is able to use vision!
Visual field	
- central vision	Provided by photoreceptor cells called **cones**. Cone cells are good at 'seeing' • things that are still • in daylight • in colour • in fine detail Some pupils may have particular difficulty with their central vision, the area of the visual field which is used for detecting fine detail. They may be able to move around fairly freely, however, if the rest of the visual field is unaffected. These pupils often have most difficulty with tasks involving reading, writing and close observation.
- peripheral vision	Provided by photoreceptor cells called **rods.** Rod cells are good at seeing: • things that move • in the dark • but only in black and white • in less detail This can create the opposite effect to central vision loss, presenting pupils with particular difficulties in moving around and locating objects, but leaving them able to work quite effectively with detail using their central vision. It can also present pupils with difficulty in finding the 'space' to record their answers on a question paper or workbook.

Control of eye movements	• Some pupils' sight is affected by irregular patches of poor vision, so that they may have to scan objects consciously in order to see them effectively. Complicated visual tasks may become impossible for these pupils if they are able to pick up information only in disjointed fragments. • Some visual difficulties arise from problems in controlling different muscle functions in the eye. Nystagmus, for example, involves a continuous involuntary movement of the eyes, usually from side to side, which creates significant focusing difficulties. Some pupils may have problems with convergence (the ability to train both eyes on the same object at the same time) while others may find it hard to shift their focus from a near to a far object.
Light	• Many pupils with a vision impairment will find pronounced variations in light difficult to manage. Many find bright light painful (photophobia), while others may find it difficult to adjust visually when moving from a bright to a dimly lit area or activity.
Colour	• Colour confusion on its own is not considered to be a vision impairment, but it often accompanies and compounds other visual difficulties. The extent of colour vision loss varies between individuals, but the main educational implications remain the same - difficulty in distinguishing detail in pictures, maps and diagrams. Activities which are heavily dependent upon colour coding may present significant access problems to pupils with a severe colour loss.
Contrast	• Some visual conditions cause particular difficulties where an object to be viewed does not stand out clearly from its background. For such pupils the lighting and colour scheme of the school environment will be especially significant. They may also find the clarity and contrast of print on the page more important than its size.

Further terminology

Accommodation	the ability of the lens to change shape to focus on objects at different distances.
Binocular vision	when both eyes work together at the same time; it enables depth perception.
Braille	a tactile form of reading made up of raised dots on a page.
Congenital	a word describing any condition present at birth.
Contrast sensitivity	the ability to distinguish different shades of grey from each other.
Field of vision	the total area that can be seen around you without shifting your gaze; detailed central vision as well as peripheral vision.
Focal point	the point of the retina where light rays meet and gives our most detailed vision; an object is in focus when it is being seen most clearly.
Functional vision	the ability to use eyesight in everyday conditions.

Light adaptation	the ability of the eye to allow in more or less light and process changes of light and dark.
Low vision aids (LVAs)	aids that improve a person's functional vision such as magnifiers; often training is needed for such aids to be used efficiently.
Mobility	training to develop orientation skills and independent movement, including use of a cane.
Monocular vision	sight through one eye only.
Moon	a form of reading by touch, which looks more like print letters than braille. It uses curves and straight lines.
Occlusion (patching)	covering one eye to develop the sight in the other (lazy) eye.
Ophthalmologist	A doctor based in a hospital who specialises in the diagnosis and treatment of eye conditions. They have extra qualifications and experience in eye disorders and in treating them with medicine and surgery where this is possible.
Optometrist	An optometrist or ophthalmic optician is a health professional who specialises in measuring children's sight and prescribing glasses. They can identify eye diseases and are usually based at a hospital or an optician.
Dispensing optician	helps with the choice of frames and make sure they fit properly but cannot test vision nor prescribe glasses. They may also be a trained optometrist.

-- End of document --