For PGCE trainees

Physical and sensory impairment

Visual impairment

Self-study task 12

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Introduction to the self-study tasks

These self-study tasks are designed to help trainee teachers on PGCE courses learn more about teaching pupils with special educational needs (SEN) and/or disabilities. They can be used as stand-alone activities or to supplement and extend taught sessions on SEN and disability provided by the school or local authority.

There are 17 self-study tasks in all. Each task will take about two hours to complete, excluding practical activities.

Every Child Matters	
SST1	Inclusion and Every Child Matters
SST2	SEN and disability legislation
SST3	English as an additional language and SEN
SST4	Children's needs and development
SST5	ICT and SEN
Cognition and learning	
SST6	Moderate learning difficulties
SST7	Dyslexia and specific learning difficulties
SST8	Working memory
Behavioural, emotional and social needs	
SST9	Behavioural, emotional and social difficulties
Communication and interaction	
SST10	Speech, language and communication needs
SST11	Autistic spectrum disorders
Physical and sensory impairment	
SST12	Visual impairment
SST13	Hearing impairment
SST14	Handwriting
SST15	Developmental coordination disorder/dyspraxia
Working in partnership	
SST16	Working with colleagues in school
SST17	Working with parents/carers and other professionals

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How to use the materials

This is an online resource. Some of the tasks are for you to do on your own; others are particularly suitable to do working with a partner.

Where some of the tasks ask you to record information you need to print out the relevant material first. Other tasks may involve using the internet, which gives you access to rich sources of information about SEN and disability and online forums for additional advice.

Each task includes the following elements:

- the professional standards addressed
- learning outcomes
- an opportunity to explore the concepts, definitions and research findings most relevant to the topic
- ideas for implementing the national curriculum inclusion statement in relation to the topic, including target setting, practical strategies, the role of additional adults and pupil grouping
- practical activities – including action research, child study and class observation
- resources – including books and websites
- an opportunity to evaluate your progress against the outcomes and plan your next steps.

A useful resource to support your studies is **Implementing the Disability Discrimination Act in Schools and Early Years Settings (DfES, 2006)**. It is available free to all schools and there should be a copy in your training institution or school. (If you haven't got a copy, you can order one using the link.)

It should be read in conjunction with **Promoting Disability Equality in Schools (DfES, 2006)** – which you can view, download or order by following the link.

Evidence and sources of information

As you work through these self-study tasks, try to keep a critical and evaluative attitude. Much of the understanding we have of what works, or doesn't work, in relation to meeting the needs of pupils with SEN and/or disabilities has not been fully researched.

Remember:

- many interventions suggested for one group of pupils with SEN and/or disabilities will often benefit other groups of pupils, including those without SEN and/or disabilities
- the quickest way to find out what to do is often to ask the pupil or their parent/carer what they think works.

Literature reviews of 'what works' in relation to literacy and mathematics for pupils with SEN and/or disabilities, which has been investigated in some depth, are available at: **www.dcsf.gov.uk/research/data/uploadfiles/RR554.pdf**

Other sources of information are listed at the end, under 'Useful resources'. You can use these to follow up and learn in greater depth about the material covered in this self-study task.

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Professional standards addressed

Q6   Have a commitment to collaboration and cooperative working.

Q20   Know and understand the roles of colleagues with specific responsibilities, including those with responsibility for learners with special educational needs and disabilities and other individual learning needs.

Q25   Teach lessons and sequences of lessons across the age and ability range for which they are trained in which they:

(a)   use a range of teaching strategies and resources, including e-learning, taking practical account of diversity and promoting equality and inclusion

(b)   build on prior knowledge, develop concepts and processes, enable learners to apply new knowledge, understanding and skills and meet learning objectives

(c)   adapt their language to suit the learners they teach, introducing new ideas and concepts clearly, and using explanations, questions, discussions and plenaries effectively

(d)   demonstrate the ability to manage the learning of individuals, groups and whole classes, modifying their teaching to suit the stage of the lesson.

Q33   Ensure that colleagues working with them are appropriately involved in supporting learning and understand the roles they are expected to fulfil.

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Learning outcome

You will understand how to remove barriers to participation and learning for pupils with a visual impairment.

Activities   Timings

Activity 1	The range and impact of visual impairments	20 minutes
Activity 2	The sensory and physical environment	15 minutes
Activity 3	Removing barriers to learning – accessible teaching and learning resources	20 minutes
Activity 4	Removing barriers to learning – developing communication skills	20 minutes
Activity 5	Mobility and independence	10 minutes
Activity 6	Social interaction	10 minutes
Activity 7	Working in partnership	15 minutes
Activity 8	Points for action	15 minutes
Useful resources		

Optional activities

There are a number of optional activities throughout this self-study task. They all involve using two audio-visual resources produced by the Royal National Institute of Blind People (RNIB):

- 'Hear Me Out' (RNIB, 2009) – an audio CD ROM, in which blind and partially sighted young people (aged 4–19) talk about inclusion, achievement and involvement

- 'Count Me In' (RNIB, 2009) – a DVD looking at inclusion for blind and partially sighted children and young people in the early years, in mainstream schools and in special schools.

You can complete this self-study task without using these materials or doing the optional activities, but since they contain video and audio examples of practice and pupils' views, they do provide an additional dimension.

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Activity 1

The range and impact of visual impairments

Approximate timing: 20 minutes

Many teachers will teach pupils who wear glasses to correct their vision, but few will teach pupils who have an uncorrectable sight loss. Visual impairment is a low-incidence disability, with just over two in every 1,000 babies born with a visual impairment.

Research by the Royal National Institute for the Blind (RNIB) and National Foundation for Educational Research (NFER) in 2007 estimated that there are around 25,000 children aged up to 16 with a visual impairment in England, Scotland and Wales. Between a third and a half of these children also have other disabilities or multiple disabilities. The low incidence of visual impairment means that you may go through your initial training and several years of teaching without having a pupil with significant needs in your classes.

Children with visual impairments are now going to mainstream schools in increasing numbers. Currently, more than 65 per cent of visually impaired children are educated in mainstream schools. If there is just one visually impaired pupil at the school, support may be provided by a visiting qualified teacher of the visually impaired (QTVI) from the local authority's advisory service. Or the school may have a resource base (sometimes called a 'unit') for several visually impaired children, staffed by one or more QTVIs and a team of other specialist staff.

There are now fewer special schools for visually impaired pupils – reduced from around 30 in 1980 to fewer than 10 now. Pupils at special schools often live a considerable distance from the school, and may need to board. Because the schools are often not in their home county, their parents and local authorities need to consider the implications carefully. The most common reasons for placing a child in a special school are that they have an additional disability or learning difficulty, or that they are not making good progress in a mainstream setting. Another factor may be difficulties in social and emotional development arising from being the only child with a visual impairment in their mainstream setting.

You do not need to be a specialist teacher of visually impaired pupils to teach them successfully, but you will need to be supported by experienced, specialist staff. If you work in a school with a resource base for visually impaired pupils, or if you have a visually impaired pupil in your class, you may find it helpful to find out about training opportunities to increase your knowledge and skills in this area.

Types of visual impairment

Visual impairment has many different causes and varies widely in type and degree of impairment.

The term 'visual impairment' includes people who are classed as blind or as having low vision. The World Health Organization's (WHO) definition of terms, based on visual acuity scores, are most widely used. These scores are based on the sight perception of people with 'perfect vision', and are expressed as fractions. So a person with a score of 6/18 can see when six metres from an object what a person with perfect sight would see at 18 metres.

People with visual acuity scores ranging from:

- 6/6 to 6/18 are described as having 'normal vision'
- less than 6/18 to greater than 3/60 are described as having 'low vision', and
- less than 3/60 are described as blind.

Although visual acuity is the most common measure, other factors such as field of view can also be important in determining where an individual sits on the spectrum of sight loss.

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Get an idea of what 3/60 vision is like

Look out of the window. (Wear your usual glasses or lenses if you need them for distance vision.) How well can you see an object that is about 60m away? This is likely to be the sort of detail that a pupil with 3/60 vision will see when looking at the whiteboard. Jot down the implications of this for teaching and learning for a pupil with 3/60 vision.

Functional vision

Most people classed as 'blind' have some sight – eg they may have peripheral vision or tunnel vision, or may find it easier to see in certain light conditions. 'Functional vision' refers to what a person can see, rather than what they can't see. It is a useful concept for including visually impaired pupils, as it allows teachers to consider how a pupil's useful vision can be used, for a range of different eye conditions.

There are many different eye conditions, and sight can be affected in many different ways. Table 1 below explains some of the terminology you may come across in relation to visual impairment. Understanding a pupil's eye condition can help you to modify your teaching so that they can be included alongside their peers.

Table 1: Terminology	
Term	**Explanation**
Albinism	A hereditary loss of pigment in the iris, skin and hair. People with albinism often have lower visual acuity, nystagmus and photophobia.
Blindness	In addition to the WHO definition given above, the term 'educationally blind' is sometimes used to refer to pupils who do not have enough sight to use print, and rely on their other senses to access information. However, even Braille users may have some vision that can be useful in everyday life.
Cataracts	A condition in which the lens becomes opaque.
Central vision loss	Central vision loss reduces the ability to detect fine detail. Pupils with central vision loss are likely to find tasks involving reading, writing and close observation difficult.
Colour loss	Many visual conditions are accompanied by or compounded by colour loss. Pupils may find it difficult to distinguish details in pictures, maps and diagrams.
Functional vision	The vision we make use of in everyday life.
Hypermetropia	Also known as 'long-sightedness' – a refractive error in which the rays of light focus behind the retina.
Impaired ocular mobility	Difficulty controlling the muscle function in the eye – eg nystagmus, strabismus.
Interrupted vision	Pupils may experience irregular patches of poor vision, and may only pick up visual information in disjointed fragments. Severe interrupted vision makes visual tasks difficult or impossible.
Low-contrast sensitivity	Difficulty in differentiating an object from its background. For pupils with low-contrast sensitivity, clarity and contrast may be more important than size. It is important to pay attention to lighting and colour schemes.

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Table 1: Terminology continued	
Term	**Explanation**
Macular degeneration	A degenerative condition affecting the most sensitive part of the retina, the macula.
Myopia	'Short-sightedness' – a refractive error in which the rays of light focus in front of the retina.
Nystagmus	An involuntary rapid movement of the eyeball from side to side, making it difficult to focus.
Optic nerve atrophy	Degeneration of the optic nerve.
Partial sight	Used broadly to describe visually impaired pupils who are able to use print. They range from pupils with fairly minor visual impairments to those who are on the margins of using print and Braille, and whose condition may deteriorate further.
Peripheral vision loss	Loss of peripheral vision creates a circular, tunnel-like field of vision. Pupils with loss of peripheral vision may: - have difficulty in moving around or finding objects - be able to read and write well, but find scanning tasks difficult, and - be able to read small print, but need the amount of detail to be reduced in resources.
Photophobia	Abnormal sensitivity to and discomfort from light.
Poor acuity	Reduced sharpness in the image seen – both distance and near vision may be affected, but not necessarily to the same degree. Some pupils may be able to read print but find it difficult to see the whiteboard (or vice versa).
Poor adaptability to light	Difficulty in adapting to variations in light. Some may have photophobia, while others may function well in bright light but are night-blind.
Residual vision	The useful sight a visually impaired person has. Most visually impaired people have some residual sight.
Retinitis pigmentosa	A group of hereditary conditions characterised by pigment changes in the retina. Retinitis pigmentosa is progressive and commonly results in severe tunnel vision or blindness.
Retinoblastoma	A cancerous tumour of the retina in young children.
Retinopathy of prematurity	A disease of the retina that occurs mainly in premature babies and babies who have received too much oxygen.
Strabismus	A 'squint' – when both eyes cannot direct their gaze simultaneously at the same object.
Visual acuity	The clarity or sharpness of the overall image.

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In this self-study task, 'visually impaired' is used to describe pupils with a range of visual impairments, including those who are partially sighted or registered blind. Sometimes we use the terms 'low vision' and 'blind' to distinguish between those with poor sight and those who have little or no sight.

In general terms, the more severe a pupil's visual impairment, the greater the barriers to participation and learning will be, and the more they will need carefully targeted support to include them in school. There are exceptions, of course, and although categories of visual impairment are helpful, you should always look at pupils' needs on an individual basis. For example, additional factors may mean that some severely visually impaired pupils may have fewer support needs than others with less severe loss.

Optional activity 1 – Types of impairment

If you have access to the RNIB CD ROM, 'Hear Me Out', listen to the 'Visual impairment' section, where visually impaired pupils describe their eye conditions.

Make a note of any conditions mentioned that you are unfamiliar with and research them.

The impact of visual impairment

There is no direct correlation between visual impairment and intelligence. Visually impaired pupils have the same range of intelligence and abilities as their sighted peers. So it is important to have equally high expectations of visually impaired pupils. However, remember that between a third and a half of all visually impaired pupils have some additional needs which may also affect their learning.

Visual impairment can affect:

- academic progress – particularly in reading and writing and concept development, as visually impaired pupils may not have access to the incidental learning through vision that is available to sighted pupils

- communication skills – particularly reading and writing

- mobility and environmental awareness

- social interaction, and

- self-esteem, particularly if pupils experience negative attitudes and stereotyping.

These will be discussed in more detail in the rest of this self-study task.

Think about the barriers to learning

Think about a school you have visited and your own teaching during your school placement. What barriers to learning might a visually impaired pupil encounter, and how could these barriers be removed?

Write down your ideas in table 2.

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Table 2: Barriers to learning for visually impaired pupils	
Examples of barriers to participation and learning	Examples where barriers to participation and learning have been removed

Optional activity 2 – The impact of visual impairment

If you have access to the RNIB CD ROM, 'Hear Me Out', listen to the sections on 'School', where blind and partially sighted pupils talk about different aspects of school life.

Add in table 2 any barriers to participation and learning that the pupils in the CD ROM faced, and any examples of where the school has removed barriers to participation and learning.

Visually impaired pupils should not experience barriers to participation in school. The next few sections look at what schools can do to reduce or remove them.

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Activity 2

The sensory and physical environment

Approximate timing: 15 minutes

An accessible physical environment can do a great deal to reduce barriers to participation and learning for pupils with a visual impairment, and it will also benefit all other pupils.

There is a balance to be struck between providing an environment that is safe and accessible for visually impaired pupils, and preparing them to take an independent role in a society that will only make the adaptations required by the Disability Discrimination Act (DDA).

In many mainstream schools with visually impaired pupils, after health and safety issues have been dealt with, the only other adaptations made to the physical environment are those required by the DDA. In special schools, or mainstream schools where pupils' visual impairments are part of a range of complex needs, more adaptations may be required. The RNIB DVD 'Count Me In' includes examples of modifications to the physical and sensory environment that special schools have made to enable pupils with a visual impairment and other complex needs to be as independent as possible around the school.

All schools must comply with the DDA and have an anticipatory duty to plan for disabled pupils. However, when a school knows it is going to receive a visually impaired pupil, a QTVI will usually conduct an audit to suggest where simple improvements could be made.

Carry out an environmental audit

When you next visit a school, walk around the school looking for areas where adaptations have been or could be made to make the environment more accessible for a visually impaired pupil. If possible, ask the school's special educational needs coordinator (SENCO) or your mentor to accompany you.

Note down where you think adaptations could be made. Some of the features you may observe or consider include:

- signage – clear, well positioned and easily visible, perhaps using Braille or symbols
- steps, edges, pillars and other transition points highlighted with yellow paint
- handrails to help with mobility
- 'tactile trails' – dado rails or other textured materials at hand height that pupils can follow to find the route to a particular location in school – eg toilets, dining hall
- different floor coverings for different areas of the school to indicate a change of environment
- clear panels on doors so people can be seen approaching from the other side
- a distinction between quiet and active areas in the playground and shaded areas for pupils with light sensitivity
- sensory gardens
- well-maintained grounds, free of obstructions, and
- corridors, cloakrooms and classrooms kept free of obstructions.

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Audit a classroom for accessibility

When you next visit a school, audit the environment in a classroom in which you observe or teach. How accessible is it for a visually impaired pupil?

Consider:

- physical accessibility
- storage and labelling of resources
- lighting
- your teaching position in relation to visually impaired pupils, and
- the whiteboard.

Use table 3 on the next page to note down any improvements you could make.

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Table 3: Classroom audit

Audit	Possible areas for improvement
Physical accessibility • Are walkways clear? Are coats and bags put away safely? Does classroom storage create an obstacle? • Is the layout of the classroom kept consistent?	
Storage and labelling of resources Are resources kept in the same place and clearly labelled with tactile markers, if necessary?	
Lighting • Is there good ambient lighting in the classroom? • Does the light fall directly onto the pupils' work areas? • Do the windows have blinds to reduce glare? • Are reflective surfaces covered to reduce glare?	

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Table 3: Classroom audit continued	
Audit	**Possible areas for improvement**
Teaching position • Do you or the teacher stand in front of a window? (Standing in front of a window can reduce you to a silhouette and make it difficult for all pupils to see you properly.) • Where do pupils sit? (Visually impaired pupils need to sit in the best position to see the whiteboard, etc, but not separately from the other pupils.)	
Whiteboard • Do you or teachers use a clearly contrasting pen for writing on the whiteboard – eg black on white? (Avoid using coloured pens or pens that are running out of ink.) • What arrangements are/could be made for pupils who cannot see the whiteboard easily, or at all? For example, do you provide individual copies of anything presented on the whiteboard for pupils who need them?	
Teaching and learning resources • Are the print resources you or teachers use in an appropriate format for pupils? (Consider print size, font and contrast. When working with visually impaired pupils you should take advice from the pupil, their parents/carers, the SENCO or the QTVI, as appropriate.) • Do pupils have a good reading position? (Reading stands or raised boards are useful to help some pupils get the best reading position.) • Do you use real objects and artefacts to support your teaching? • Do/would pupils who use special equipment or large print resources have adequate space to work?	

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Optional activity 3 – What pupils say about seeing the whiteboard

If you have access to the RNIB CD ROM, 'Hear Me Out', go to the section in 'Schools', and within that the section on 'Whiteboards'.

Listen to what pupils with visual impairments have to say about seeing the whiteboard.

Add any ideas this brings up to your list of possible improvements in table 3.

Optional activity 4 – The physical and sensory environment

If you have access to the RNIB DVD, 'Count Me In', go to the following sections:

- Early years settings
- Local primary school, and
- Resourced secondary school.

Watch the section in each about the physical and sensory environment.

Make a note of any new issues or ideas.

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Activity 3

Removing barriers to learning – accessible teaching and learning resources

Approximate timing: 20 minutes

This section looks at ways to remove barriers to learning and participation for visually impaired pupils by making teaching and learning resources accessible.

General principles for preparing resources

Accessible materials reduce the amount of support that visually impaired pupils need. In mainstream schools, teachers are likely to have to modify (or direct teaching assistants to modify) teaching and learning resources for just one or two visually impaired pupils in a class of fully sighted pupils. There are a number of general principles that can make the process of modifying resources more manageable for staff and visually impaired pupils.

It is important to find out the most appropriate way to present materials for individual pupils. Different pupils will have different requirements, depending on their particular visual impairment – these are considered in more detail below. If you do not know the kind of modifications a visually impaired pupil requires, you should consult the QTVI, SENCO, the pupil themselves and/or their parents/carers.

Teaching assistants or communication support workers have a crucial role in enabling schools to understand and meet the needs of pupils with visual impairments, and are often responsible for producing modified materials for visually impaired pupils. RNIB runs a course called 'Partners in learning' for teaching assistants. Teaching assistants who are qualified and experienced in supporting visually impaired pupils play an important part in making sure teaching and learning resources are accessible and prepared in good time for lessons.

Principles for modifying resources more easily

Some of the principles for managing the preparation of resources for visually impaired pupils are:

- plan ahead to make sure you/support staff have time to modify materials before the lesson

- make sure support staff know exactly what is required and by when

- consider producing all materials in an accessible font size (RNIB recommend at least 14 point) and typeface to reduce the amount of modification needed – this will also help other pupils, eg those with dyslexia

- prepare resources on a computer so that they can be saved and modified easily to produce different versions

- provide electronic copies of resources for older pupils so they can put them into their preferred format themselves, using generic or pre-set functions in their own computers

- allow pupils to submit written work electronically wherever possible, and add comments electronically so that they are also accessible to pupils

- give extra time if needed for visually impaired pupils to process information and complete tasks – think about the simplest form of resource that will enable them to meet or demonstrate that they have met the learning outcomes, and

- look for resources already available in a suitable modified format (see below and in 'Useful resources').

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Published modified resources

Many published learning resources are already available in a modified format – though you will need to check whether this is the format you require. Try the following:

- RNIB library catalogue, which has over 170,000 items available for loan and/or sale in audio, large and giant print, Braille and Moon: **http://librarycatalogue.rnib.org.uk**

- ClearVision, which is a postal lending library of over 13,000 mainstream children's books. The books all have added Braille (or Moon), print and pictures, making them suitable for visually impaired and sighted children and adults to share: **www.clearvisionproject.org**

- The Becta vi-forum – an invaluable source of professional advice on accessible resources, as well as a platform where teachers can share copies of accessible resources: **http://lists.becta.org.uk/mailman/listinfo/vi-forum**

Making print-based resources accessible

Text

Many visually impaired pupils can use print-based materials. With appropriate low-vision aids (magnifiers etc), even pupils with very little sight can use standard sized print for some purposes. In many cases, however, enlarging the print can make reading easier. The preferred print size will vary, depending on:

- a pupil's visual impairment

- the nature of the task, and

- the complexity of the text.

For some visually impaired pupils, enlarging the print may not help. For example, pupils with a severe visual field loss may have only a small working area of vision, so making the print larger would mean they would see even less in each fixation. Other eye conditions may make reading tiring, or make it difficult for pupils to scan a text or keep their place. The QTVI, SENCO or pupils themselves will be able to tell you about the implications of a particular eye condition for close work and for reading the whiteboard.

The legibility of print depends not only on its size, but on its quality. Other factors can also affect legibility, including:

- font type – in general, use a clear font such as Helvetica, Arial, Tahoma or Tiresias; avoid light or curved fonts such as italics; avoid mixing font types in the same resource

- formatting and justification – avoid italics and underlining; do not use upper case letters for continuous text; left justify text

- spacing between letters, words, lines and illustrations – leave space before and after paragraphs and illustrations; if pupils have to write on the resource, allow extra handwriting space for visually impaired pupils

- quality of paper – avoid glossy paper as this can cause glare

- page layout – keep page design clear and uncluttered; keep drawings, tables and graphs as simple as possible

- the contrast between print and background – some pupils may require bold or semibold print; use black text on a cream or white background unless pupils require alternative colour combinations; avoid coloured print and backgrounds if possible, but if you do use them make the colour contrast as strong as possible; avoid putting text over illustrations.

The RNIB resource, 'See It Right' (RNIB, 2007), gives detailed guidance on making written materials accessible to visually impaired pupils.

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Braille

Modifying learning resources for Braille users is a time-consuming and skilled task, and will normally be organised by QTVIs. You need to communicate effectively with the QTVI to make sure Braille resources are available for pupils in time for the lessons when they need them.

Additional time will always be required for reading Braille. Even the most competent Braille readers read more slowly than a sighted person reading print.

Not all pupils with little or no sight will use Braille as their main way of accessing text. Increasingly, blind pupils are learning to touch-type and are using laptops with screen readers in lessons. Laptops have a number of advantages over Brailler machines in that they are lighter to carry and quieter. Work can be given to pupils by e-mail or on a memory stick, completed using a screen reader and printed out in text or in Braille, as required.

Tactile pictures, diagrams, tables and charts

Alongside Braille resources, pupils with little or no sight but good tactile skills may also use tactile resources – pictures, diagrams, charts and graphs – to gain access to curriculum information. Pupils need to be taught how to interpret tactile diagrams.

Tactile pictures/diagrams can be useful when:

- a picture/diagram is not easy to describe in words
- the shape or pattern are vital to understanding a concept
- scale is important, and/or
- the real object is unavailable.

Tactile resources are often produced using heat swell paper. A simplified version of the picture/diagram is printed or photocopied in black and white onto specially coated paper. It is then fed through a heat machine that raises all the black areas. Other tactile resources can be made using 'Wikki Stix', thermoform technology or embossed Braille paper. Increasingly, pictures and diagrams on websites have an audio description that can be read by a screen reader.

Visually impaired pupils will have different needs and preferences, so before modifying pictures, diagrams, tables or charts for particular pupils, check with the QTVI, the SENCO and/or the pupil themselves.

In general, however, it will be useful to consider the following for both printed and tactile pictures and diagrams:

- **What is the purpose/learning aim of any diagram/picture/table/chart?**

- **Is it essential?** Tactile diagrams and pictures take considerable time and skill to make and interpret. In many cases, the time needed to produce and interpret a tactile diagram may outweigh the advantages of producing a diagram – eg if it does not add information to the text.

- **What information is essential?** Modify pictures and diagrams to reduce the visual/tactile demand and to leave only the essential information. Some pupils with a visual impairment will only see or feel small sections of a picture or diagram at a time, and will need to piece the sections together mentally to appreciate the whole thing. Other visually impaired pupils will find it difficult to scan to find key information – eg information embedded in a table of non-essential information.

- **Could the information in the picture/diagram be replaced with a written description or with a real object or model?** A written description can give the user information about the picture or diagram, plus, where necessary, additional information to provide a context that might be unfamiliar to the visually impaired pupil. Some pupils with a visual impairment may find the concept of a 2D diagrammatic or pictorial representation of the real world difficult to grasp, so real objects can be more meaningful.

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Real objects and artefacts

Some materials that might ordinarily be presented as illustrations or diagrams can be presented instead as real objects or models to help include visually impaired pupils. In many cases, real objects are more meaningful to pupils than raised 2D representations.

Read the following case study, which shows how a geography teacher adapted teaching resources for visually impaired pupils. This discussion of lesson design for pupils with a visual impairment in geography is one of many that can be found in the subject-based pages of the RNIB website (**www.rnib.org.uk/professionals/education/schoolbasedlearning/mainstream/ teachingcurriculumsubjects/Pages/national_curriculum.aspx**).
Subject-specific information can also be found in Teaching Pupils With A Visual Impairment (S Salisbury, 2008).

Case study: Teaching geography to pupils with a visual impairment

As a teacher in a VI school I realise I have many advantages: the fact that I only have small class sizes and I can get them into a minibus and visit various places. But what I would like to do is give one or two pointers as to how their understanding of geography might be improved in the classroom.

I am new to teaching in the world of the visually impaired, but I have learnt a lot in this short space of time. It is important when planning your lessons that you think about any VI pupils you might have, and ask yourself will they be able to access the material you are putting before them. If you have any doubts, ask the pupil if it is OK or how might it be improved next time. It might mean simple things like enlarging diagrams or using a larger font size. Remember if you are explaining things on the board a person with a visual impairment might not be able to see the board and might be too self-conscious to say anything. When writing on the board, make sure your writing and diagrams are big enough and distinctive. Check if the pupil is seated in the best place for them and that the lighting is suitable.

When producing diagrams and handouts, think about whether all the information is necessary. You may be able to simplify the diagram and cut out some of the text, making it easier for a VI pupil to access. Make sure that the work is printed on the correct colour paper: some pupils may prefer things on a certain paper or in a certain typeface.

I have found that making models of landforms helps increase a VI pupil's understanding and appreciation of what the landform looks like. I have a container of children's modelling clay in my classroom from which I can make models. It does not take long to make them nor do you have to be artistic. It is just a matter of getting across the basic shape of landforms. The models I have made include a headland with a cave, arch and stack which when turned on its side can become a wave-cut notch. I have made models of cacti to help them understand their shape, as well as models of sea walls to explain how the water is reflected back. Other models I have made out of modelling clay are: the lower course of a river with meanders, flood plain and levees; waterfalls and 'V' shaped valleys. Models can be made of any landform and may sound difficult but trust me they are not, you can make a model in a matter of minutes and increase the VI pupil's understanding of a landform.

If a VI pupil is given a photograph to look at it might be difficult for them to pick out all the features, especially if it is a busy photograph. This can be got round either by adding a description or producing a simple sketch of the photograph. A way I have found that works is to get another pupil to describe what they can see to the whole class, so the VI pupil does not have any extra attention placed on them.

Stuart Snowdon, RNIB New College, Worcester
(Adapted from: **www.sln.org.uk/geography/segs01.htm**)

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Optional activity 5 – Teaching and learning resources (video clips)

If you have access to the RNIB DVD, 'Count Me In', go to the 'Mainstream schools' section and choose 'Local primary school' and/or 'Resourced secondary school'. From there, choose the sections on the curriculum.

Watch the films, paying particular attention to the adaptations to teaching and learning resources that are made to include pupils with visual impairments in lessons.

Note down any issues or new ideas. Also look out for the role played by teaching assistants and other support staff in modifying resources.

Information and communication technology (ICT) and other specialist equipment

A range of special equipment is available to help visually impaired pupils gain access to the curriculum. Some of it is low-tech, eg magnifiers and mechanical Braillers, but a range of high-tech options are also available that enable visually impaired pupils to be included fully in lessons and to gain access to the ICT-based resources that are increasingly part of teaching and learning.

Using special resources and ICT

Recent interviews with children and young people talking about the technology they use to give them access to the curriculum[1] highlight the following resources:

- miniature telescope
- monitor that connects to the whiteboard
- bar magnifier
- dome magnifier
- closed-circuit television (CCTV)
- talking equipment
- Braille rulers, compasses and protractors
- high-contrast equipment
- Perkins Brailler
- Braille note-taker
- laptop with screen reader
- magnifying mouse, and
- magnifying software.

Do some research to find out about any of these that are unfamiliar to you.

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1   You can hear these interviews on 'Hear Me Out' (RNIB, 2009).

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Activity 4

Removing barriers to learning – developing communication skills

Approximate timing: 20 minutes

In this activity you will look at ways to remove barriers to learning and participation for visually impaired pupils by helping them to develop their reading and writing skills.

Good communication skills are vital to learning. Pupils with a visual impairment should be encouraged to develop their language and communication skills from a very early age.

Reading

Many pupils with a visual impairment will be able to see the large, clear print used in early years settings and classrooms. But as pupils move through the school, print tends to become smaller and may therefore need to be modified, or pupils may need to use specialist reading aids such as magnifiers (see activity 3). Teachers need to work closely with the QTVI and/or SENCO to make sure appropriate materials are provided.

Pupils with particular visual impairments may have difficulties with skimming and scanning to find information on a page. Their reading can be slower and they may tire easily. It is often useful to allow pupils to take materials home to read before they are used in lessons so that the pupil can take part in activities rather than spending their time trying to read the material.

Visually impaired pupils may not have access to the incidental visual learning that sighted pupils have. It is helpful to check that pupils are familiar with a concept before asking them to do work related to it. For example, before asking pupils to design an advertising poster or the front page of a newspaper, check that they understand the key features. If necessary, provide some pre-teaching, perhaps with a teaching assistant, so they can participate fully with other pupils during the lesson.

Pupils with little or no vision will need opportunities to develop their sense of touch to give them access to written material. Not all blind children are keen to use their hands, and in the early years of schooling these pupils often need activities to encourage them to explore and tolerate textures and to become efficient touch readers. These activities will include, for example, those designed to develop:

- manual dexterity, flexibility and strength
- tracking skills, and
- tactile perception – ie matching and discriminating textures and shapes by touch.

QTVIs are responsible for coordinating Braille teaching and, along with support staff, will introduce pupils to Braille at the same time that their sighted peers learn to use print.

Blind pupils will have individual Braille tuition alongside normal classes. However, it is good inclusive practice to make sure Braille users take part in literacy activities alongside the sighted pupils in their class. Some schools also help Braille users to feel included by introducing basic Braille to all pupils in a class, holding Braille awareness activities or Braille clubs.

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Optional activity 6 – Including a Braille user in a mainstream school

If you have access to the RNIB DVD, 'Count Me In', go the section on 'Mainstream schools' and select 'Local primary school'. By choosing the 'Play all' option, you can view the story of Georgia, a year 4 Braille user, who has been included in her mainstream school since nursery.

As you watch, note down any issues you see for including Braille users in mainstream settings. What issues will need to be considered when Georgia moves on to her local mainstream secondary school?

Lessons can be made more accessible to visually impaired pupils by adopting a multi-sensory approach – for example, using audio or tactile resources alongside or instead of visual resources. An example of a blind pupil being included in a literacy lesson by using sensory stories can be seen on the RNIB DVD, 'Count Me In'.[2]

Accessible lessons

Look at one of your lesson plans. How accessible is it for a pupil with a visual impairment?

Consider:

- any concepts that you have assumed all pupils will understand, but which a visually impaired person may not have come across

- the amount of reading and writing pupils are required to do, and

- the number of visual resources you use.

Annotate your lesson plan to show any modifications you could make to your lesson to enable a visually impaired pupil to take part fully, alongside the sighted pupils.

Writing

Some visually impaired pupils are able to write neatly and legibly, but others can find handwriting tedious and frustrating.

Difficulties may include:

- Lack of fine motor skills, resulting in poor pen control and large, uneven letter formation – visually impaired pupils may have had fewer opportunities than their sighted peers to develop these through play.

- They may need to work very close to the page to see what they are writing – this can be tiring, and reduces the amount of light falling onto the page. A sloping desktop stand can help some pupils.

- Writing in a straight line and putting adequate spacing between letters and words may be difficult. Lined paper can help, and paper with darker lines is available for visually impaired pupils.

- Seeing what they have written – black fibre-tip pens on cream or white paper often offer maximum contrast.

- Spelling – because visually impaired pupils may have had less exposure to written words or may find it difficult to see word patterns at a glance, they may have more difficulty with spelling than their peers or they may find it difficult to tell if words are spelt correctly. The teaching of spelling may need to be modified for visually impaired pupils.

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2   Select 'Special school', then 'Resourced special school', then 'Curriculum adaptation' to find the relevant example.

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As visually impaired pupils progress through school, they may find that handwriting is an inefficient way to record their work, and they will need to develop typing skills to reach the same standard of speed and neatness as the sighted pupils.

Most pupils who write Braille begin by using a mechanical Perkins Brailler. When the pupil presses the keys, raised letters are embossed onto paper, which is fed manually into the Brailler. More recently, a variety of electronic Braille-writing devices have become available. On these machines the output may be a tactile display on the front of the machine or speech. Pupils' work can downloaded and printed out in text or embossed into Braille.

Many severely visually impaired pupils now use touch-typing to complete work in most subjects on a conventional desktop or laptop computer, with software that enables them to record and retrieve information using synthesised speech. Teachers can supply work by e-mail or using a memory stick, and pupils can return work in the same way.

However, in some subjects – like mathematics – most pupils still use a manual Brailler because it allows them to lay out and check their work easily. In these instances, pupils' Braille will need to be transcribed for marking. This may be done by a teaching assistant qualified in Braille. In schools with VI resource bases, it may be done by a technician.

Optional activity 7 – Using technology in GCSEs

If you have access to the RNIB DVD, 'Count Me In', go to the section on 'Mainstream schools' and then select 'Resourced secondary school' followed by 'Curriculum adaptation'.

Watch the film and notice particularly how Matthew, a blind GCSE student in a mainstream school, combines Braille and a laptop with a screen reader to take a full range of GCSEs.

Listening

Some visually impaired pupils may find it more efficient to process information through listening than through seeing. Many older visually impaired students and college and university students rely heavily on recording devices to take notes or to listen to audio books. It is important to remember that pupils' listening skills need to be developed, as the hearing of visually impaired pupils does not improve to compensate for their lack of vision.

Optional activity 8 – Pupils' views

If you have access to the RNIB CD ROM, 'Hear Me Out', listen to the views of children and young people in the section on reading and writing, in the 'School' section of the disc.

Write down any remarks that interest you or that have implications for your teaching.

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Special arrangements for national assessments and examinations

Visually impaired pupils will normally be entitled to additional time in examinations, and may qualify for other arrangements such as having a scribe or an amanuensis. Arrangements should generally reflect the modifications the pupil uses for ordinary lessons.

If access arrangements are to be made for exams, they must also be used in preparation for examinations and for 'mocks'. Applications for these access arrangements need to be made to the examination board in advance, so the member of staff who deals with this must be made aware of the visually impaired pupil's requirements in good time.

Examination boards and the Qualifications and Curriculum Development Agency (QCDA) set out special arrangements in detail. Information can be found at:

- **http://testsandexams.qcda.gov.uk/21551.aspx**
  about assessment and reporting arrangements for national tests (SATs)

- **www.jcq.org.uk/attachments/published/1096/25.%20AARASC%200910.pdf** for information about GCSE regulations.

Research special arrangements in exams and assessments

Find out about the special arrangements available to visually impaired pupils taking SATs or public examinations by:

- talking to a SENCO, examinations officer and/or the QTVI at a school you visit, and/or

- looking at the relevant section of the QCDA or Joint Council for Qualifications (JCQ) websites (see above).

Optional activity 9 – Examinations

If you have access to the RNIB DVD, 'Count Me In', go to the section on 'Mainstream schools' and select 'Resourced secondary school' followed by 'Working towards examinations'.

Watch the film and note down any issues you want to follow up.

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Activity 5

Mobility and independence

Approximate timing: 10 minutes

There are two major challenges facing visually impaired pupils:

- learning to move around independently, and
- learning to be independent in other aspects of their everyday lives.

Mobility and orientation

It is easy to imagine why a blind child may need help in learning to move around safely, but children with other visual impairments may also need some support. For example, pupils with photophobia may find it difficult to navigate on bright sunny days because of glare. Pupils with macular degeneration may have poor depth perception. They may be unable to identify stairs, kerbs and changes in surface, and shadows on the ground may look to them like large objects.

Teaching orientation and mobility is usually done by a mobility specialist. For pupils with a severe visual impairment, this is a legal requirement and continues throughout their schooling. However, the time spent learning orientation and mobility skills is necessarily very short, so it is important that the mobility programme is supported at other times, both at school and at home.

Close collaboration between the mobility specialist and the school can ensure that staff know which stage of the mobility programme a pupil has reached and which skills are being taught at the time. Staff can then support pupils in establishing and practising those specific skills. For example, a pupil may have just learnt a new route from the classroom or form room to a particular part of the school, and practising that with adult or peer support would be very helpful. If a pupil you teach requires sighted guiding, talk to the QTVI or the SENCO about training in this so that you can guide the pupil confidently and safely when necessary.

Optional activity 10 – Moving around safely

If you have access to the RNIB CD ROM, 'Hear Me Out', listen to the section on getting around safely.

Make a note of the difficulties the children and young people featured have in moving around safely and the support they need.

If you also have access to the RNIB DVD, 'Count Me In', select the sections on 'Mainstream schools' followed by 'Local primary school' and/or 'Resourced secondary school', followed by 'Movement and mobility'.

Watch the film and write down any issues or ideas that have implications for your teaching or that you wish to follow up.

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Moving to a new school

Moving to a new school can be daunting for pupils with a visual impairment. When they change schools – eg when moving from a small primary site to a much larger secondary school – they will need plenty of time and support to learn the layout and the more complicated routes around the school to different classrooms. Many secondary schools arrange taster days for pupils about to join the school. As well as joining the other pupils on these days, it is also useful to arrange at least one additional visit for visually impaired pupils to help them with orientation around the school site.

Optional activity 11 – Moving schools

If you have access to the RNIB CD ROM, 'Hear Me Out', listen to the section on moving to a new school.

Make a note of:

- any difficulties pupils mention, and
- the things that helped them settle in.

Now, thinking about a school you are familiar with, make a note of anything the school could do to help a visually impaired pupil to find their way around and settle in quickly if they were moving to your school from another school.

Life skills

Being able to look after yourself involves a range of different skills, such as personal grooming and hygiene skills, shopping and cooking. Children with a visual impairment need time to learn these so they become part of their daily routine.

Making a sandwich

List all the skills you need to make a sandwich. How could you help a pupil with little or no vision to learn all these skills and carry them out safely?

Think about:

- the layout of the room, and
- the way equipment is stored and labelled.

Optional activity 12 – Independence

If you have access to the RNIB DVD, 'Count Me In', go to the section on 'Mainstream schools' followed by 'Resourced secondary schools', then select 'Independence – Natasha'.

Watch the video, in which Natasha, who has little sight, talks about learning to cook.

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Activity 6

Social interaction

Approximate timing: 10 minutes

Schools can do a great deal to ensure that visually impaired pupils are included fully in the social life of the school.

Some simple ideas include:

- making sure that all pupils and staff, including non-class-based support staff are aware of the pupil's needs
- addressing any pupil by name before asking them a question or giving an instruction
- arranging awareness and information sessions to make sure pupils and staff are well informed about visual impairment
- providing opportunities for sighted pupils to learn skills and games usually offered only to visually impaired pupils[3], eg Braille or disability sports
- positioning pupils in class so they can interact with other pupils
- encouraging teaching assistants to move away and help other pupils when the visually impaired pupil can work independently
- providing playground buddies
- encouraging and enabling visually impaired pupils to take part in school trips, playground games, school clubs and after-school activities, school plays, assemblies and concerts
- encouraging visually impaired pupils to eat with the other pupils, not separately with support staff, and
- avoiding over-protectiveness – allow the pupil to be as independent as possible.

It might sometimes be necessary for a visually impaired pupil to be taken out of lessons for a specific purpose – eg for mobility training, Braille or touch-typing tuition. This withdrawal should normally be monitored and time limited. Too long out of class can isolate a pupil.

Visually impaired pupils may have low self-esteem, particularly if they experience negative attitudes and stereotyping. Providing opportunities for sighted pupils to learn about visual impairment and simulate the experience of visual impairment – eg using special glasses that mimic particular visual impairments, or blindfolds – can encourage understanding and promote inclusion. It is important that the school's anti-bullying policy has a zero tolerance attitude to bullying associated with disability, and that incidents of bullying behaviour and stereotyping are challenged by all staff in the school, working within the policy.

Optional activity 13 – Bullying behaviour

If you have access to the RNIB CD ROM, 'Hear Me Out', go to the section on 'Keeping safe' and select the section on 'Bullying'.

Listen to the views and experiences of the children and young people.

What seemed to be the most important factors in preventing or stopping bullying behaviour for the children and young people featured?

Now select 'Local primary school' followed by 'Attitudes and expectations – Jacob' to hear how activities aimed at raising awareness of visual impairment helped to shape Jacob's views of visual impairment.

3   'Count Me In' (RNIB, 2009) shows sighted pupils being given the opportunity to try out a disability sport wearing a blindfold. Choose 'Resourced secondary schools' and then 'Social interaction and inclusion'.

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Activity 7

Working in partnership

Approximate timing: 15 minutes

A visually impaired pupil and their family are likely to be working with a range of different professionals. Although you may not meet all the people involved, it is important to understand each agency's role in relation to the pupil and their family. It is also useful to know what advice and support the different agencies can offer to you.

Research the different agencies and professionals

Do some research to find out the roles of the agencies and professionals listed in table 4. Find out how they might support you if you had a visually impaired pupil in your class. Record the information you find out in table 4.

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Table 4: Working in partnership with other professionals		
Agency	Role	What support could they offer me?
Qualified teacher of visually impaired children		
Mobility officer		
Specialist ICT teacher		
Specialist Braille teacher		
Paediatrician		
General practitioner (GP)		
Educational psychologist		
Local authority officer		
Other mainstream teachers		
SENCO		
Teaching assistant		

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Working with others to support visually impaired pupils

This activity looks at key relationships that can help you include a pupil with a visual impairment:

- parents/carers
- teachers of visually impaired pupils
- mobility officers
- teaching assistants
- visually impaired pupils themselves, and
- other teachers.

The class or subject teacher is responsible for preparing lessons, delivering the curriculum, marking, discipline and inclusion. It is essential, therefore, that you develop a good working relationship with staff and others supporting a visually impaired pupil so that everyone understands the roles, responsibilities and expectations.

Parents/carers

Parents can make an invaluable contribution to their child's education by:

- sharing their own knowledge about their child, and
- providing a supportive learning environment at home.

Qualified teachers of visually impaired children

Local authorities employ qualified teachers who are additionally qualified as QTVIs. They have specialist knowledge about visual impairment and its implications for pupils' educational, social and emotional development.

QTVIs often assess a pupil's functional vision and give the school a list of potential barriers to learning that they may face, and strategies for removing them. They do not make medical diagnoses but usually liaise with the appropriate medical staff.

How often a QTVI will visit a school will depend on the local arrangements. Resourced mainstream schools may have a QTVI on site. During their visits, the QTVI may observe pupils in class to assess the accessibility of the curriculum and how the pupils are progressing, and to discuss strategies with their teachers.

Sometimes QTVIs work one to one with pupils, to discuss their progress or for agreed specialist teaching – eg touch-typing, Braille or using specialist equipment.

An important part of their job is to support the inclusion of visually impaired pupils in mainstream schools by supporting teachers. They may offer training to all staff, small groups or individual teachers. Many local authorities' sensory support services run courses for teachers and support staff working with visually impaired pupils.

A QTVI will be able to advise you on:

- planning lessons, developing resources and modifying texts
- adapting your classroom
- strategies to encourage communication, mobility and social interaction
- working with teaching assistants
- special arrangements for tests and exams
- setting targets and reviewing progress, and
- the roles of other agencies and professionals.

QTVIs will also often attend the annual reviews of visually impaired pupils, and can provide valuable support when a pupil moves on to a new school.

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Find further information

The RNIB and local authority advisory services for visually impaired pupils provide written information sheets that are useful to teachers in mainstream schools.

Find out what is available and obtain copies of sheets that interest you. Read them and make a note of any issues to follow up.

Teaching assistants

Teaching assistants can be vital to making inclusion work for visually impaired pupils in mainstream schools.

The most important factor here is the way that teachers and teaching assistants work together. Don't rely solely on the teaching assistant to teach the visually impaired pupil. It is important to build a relationship with visually impaired pupils, as with other members of the class. This means teaching them directly, using the teaching assistant to support the pupil when necessary, while enabling the pupil to work independently alongside the other pupils whenever possible.

Make sure you set aside time to meet with the teaching assistants to plan and discuss lessons. They will need copies of your schemes of work and lesson plans in advance, and any textbooks and other resources you will be using.

Explain the role that you want the teaching assistant to play in different parts of the lesson, and involve the teaching assistant.

Teaching assistants can carry out a range of activities in preparation for or during lessons, including:

- pre- and post-lesson tutoring
- one-to-one support in lessons – eg checking that pupils have understood or explaining new concepts or vocabulary
- facilitating small-group work
- acting as a note-taker for older pupils
- observing pupils and assessing their progress
- preparing pupils for exams and tests, and
- planning and evaluating lessons alongside the teacher.

Teaching assistants can also:

- adapt resources
- check equipment, such as CCTV
- work with a pupil on Braille and touch-typing outside lesson time
- contribute to target setting and reports, and
- attend meetings such as annual reviews.

Visually impaired pupils

Involving visually impaired pupils in planning their own support will mean they can identify their own strengths and weaknesses and work out which strategies work best in different situations. This will prove valuable when they progress to further education or employment and have to identify their own support needs.

Inclusive education is not just about strategies and efficient classroom management: it must be a positive experience for visually impaired pupils. In 2009, RNIB published 'Hear Me Out', a CD ROM which gives the views of blind and partially sighted children and young people aged 4–17 on inclusion, achievement and involvement.

Other teachers

Share information and observations with colleagues. This will inform your practice and theirs, and help with visually impaired pupils' transition between lessons, classes and key stages.

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Activity 8

Points for action

Approximate timing: 15 minutes

15 mins

Spend a few minutes reflecting on this self-study task and record key points for action below.

What do I want to do next to develop my practice?

_____

_____

_____

_____

How will I do this?

_____

_____

_____

_____

What is my timescale for this to happen?

_____

_____

_____

_____

How will I know if I have been successful?

_____

_____

_____

Do I need to involve anyone else in enabling this to happen?

_____

_____

_____

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Useful resources

Services and support organisations

Local authority visual impairment services

Your local authority should have at least one qualified teacher of visually impaired children (QTVI) to advise teachers and other staff on working with children in the setting. These specialists are qualified teachers who have additional qualifications and experience in working with children with a visual impairment. If you have difficulty getting help, or need the details of the specialist teacher in your area, contact the RNIB Helpline and ask for your nearest family services officer.

RNIB services

RNIB (Royal National Institute of Blind People) is the leading charity offering practical support and advice to anyone with a sight problem. They provide a range of services for children and families, including advice on supporting the learning of blind or partially sighted children.
www.rnib.org.uk

RNIB Helpline

Available by telephoning 0303 123 9999 or e-mailing **helpline@rnib.org.uk**, the RNIB Helpline offers an immediate, expert and confidential service. Many of the Helpline staff have sight problems themselves. They are trained to listen and to give reassurance and advice. They can:

- put you in touch with specialist advice services

- give you details of support groups and services in your area

- provide free information.

The Helpline is open Monday to Friday, 9am – 5pm (Wednesdays 9am – 4pm). Messages can be left on the answerphone outside these hours. Interpreters can be arranged for most languages.

LOOK

Supporting parents and carers of children with a visual impairment, LOOK offers practical advice and emotional support through newsletters, information, enquiries, forums and events.
www.look-uk.org

NBCS

The National Blind Children's Society (NBCS) helps children and young people with visual impairments to achieve their educational and recreational goals.
www.nbcs.org.uk

Sense

Sense is the leading charity that supports and campaigns for children and adults who are deafblind. They have a family, education and advisory service.
www.sense.org.uk

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Information on visual conditions

VI Scotland
A website with explanations of medical information about conditions that cause visual impairments, written specifically for parents.
www.viscotland.org.uk

Contact a family
The contact a family website has an A–Z list of specific conditions and rare disorders. It includes all the main visual conditions, a section on vision in childhood and details of support groups for people who have particular eye conditions such as albinism, retinoblastoma, nystagmus or retinitis pigmentosa, and for their families.
www.cafamily.org.uk

Disorders of Vision in Children
Bowman, R, Bowman, R and Dutton, G, 2001, Disorders of Vision in Children: A guide for teachers and carers, RNIB E&E – available online at: **http://onlineshop.rnib.org.uk/shoptab.asp**

This RNIB book explains how disorders of visual function can impair visual performance under different circumstances, and looks at the educational implications. It covers how eyes and the visual system work, assessing functional vision and eye conditions and diseases.

Useful websites

RNIB Parents' Place
A website for parents of blind and partially sighted children, where they can pick up tips and advice, get information about RNIB's family events and support, health, rights and services, and talk to other parents on a message board.
www.rnib.org.uk/livingwithsightloss/copingwithsightloss/parentsplace/pages/parents_place.aspx

RNIB Curriculum Clipboard
RNIB has a wealth of information for teachers and other professionals supporting the education of blind and partially sighted children and young people, including those with complex needs.
www.rnib.org.uk/professionals/education/pages/education.aspx

Lea Hyvärinen
This homepage has been created to share with other teachers the teaching materials of Lea Hyvärinen – an ophthalmologist and senior lecturer at the University of Helsinki – in low vision, vision screening and occupational health.
www.lea-test.fi/leaweb/index.html

LilliWorks
This homepage is for parents, therapists and educators who are interested in an 'active learning' approach which was developed by Lilli Nielsen, a Danish teacher and psychologist.
www.lilliworks.com

VI-forum
VI-forum is a UK-based e-mail discussion group. It is intended primarily for teachers and teaching assistants to discuss issues and share information relating to teaching children with visual impairments.
http://lists.becta.org.uk/mailman/listinfo/vi-forum

RNIB technology pages
RNIB's main site provides information on keyboard skills, computers, internet and much more.
www.rnib.org.uk/livingwithsightloss/computersphones/pages/computers_mobile_phones.aspx

Inclusive Technology Ltd
A supplier of equipment and software that helps people with special educational needs to use a computer, communicate and learn.
www.inclusive.co.uk

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RNIB National Centre for Tactile Diagrams
The website provides information and advice about all aspects of creating, teaching and supporting the use of tactile graphics.
www.nctd.org.uk

Tactile books
On the Tactile Book Advancement Group's website you can find advice and information for everyone about designing, producing, using, buying and borrowing tactile books. Guidelines for publishers, authors and illustrators of children's books give advice about small changes that can make a big difference.
www.tactilebooks.org

Hungry Fingers
Hungry Fingers educational tools are designed to give visually impaired children a greater sense of spatial awareness and to develop their sense of control of the space around them.
www.hungryfingers.com

Qualifications and Curriculum Development Agency (QCDA)
QCDA's tests and exams support website has information on national curriculum assessments, general qualifications and the new diploma qualifications.
http://testsandexams.qcda.gov.uk

Joint Council for Qualifications (JCQ)
JCQ represents all the UK awarding bodies, and this site contains key information about access to general qualifications for candidates with disabilities.
www.jcq.org.uk

Richard Hirstwood and Flo Longhorn
This website contains information on multi-sensory approaches to learning, and offers in-house training, current courses and things to buy, for anyone working in special or mainstream education.
www.multi-sensory-room.co.uk

Ace Centre
A comprehensive site providing information on communication and technology for learners with complex needs. It includes a good explanation of 'objects of reference' for children with visual impairments and complex needs.
www.ace-centre.org.uk

Moon Literacy
Use this site to find out about teaching literacy and maths using Moon, research that is going on into Moon and to download a Moon font.
www.moonliteracy.org.uk

Intensive Interaction
Information on an approach to learning early communication for children and young people who have profound and complex needs. It is particularly relevant to pupils who are blind or partially sighted.
www.intensiveinteraction.co.uk

Personal Communication Passports
This website explains how to create and use Personal Communication Passports. These are a practical and person-centred way of supporting children and young people who cannot easily speak for themselves.
www.communicationpassports.org.uk

Picture Exchange Communication System (PECS)
The site of Pyramid Educational Consultants, the originators and main source of information about the PECS system, which is used with many children with learning difficulties, including those with partial sight.
www.pecs.org.uk

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MDVI Euronet
Information on European-wide work relating to the education of pupils who have visual impairments and multiple disabilities.
www.mdvi-euronet.org

Teaching Students with Visual and Multiple Impairments
Part of the website of The Texas School for the Blind & Visually Impaired. It contains a large number of articles on various aspects of teaching blind and partially sighted children with complex needs.
www.tsbvi.edu/Education/vmi/index.htm

Look Up
Information on eye care and vision for people with learning disabilities.
www.lookupinfo.org

Resources

See It Right
RNIB's See it Right book and companion CD ROM were fully revised and updated in 2007, using the latest research. The resource gives organisations the tools they need to improve their policies and procedures for producing information. Available online from: **www.rnib.org.uk**

Early Years Foundation Stage
The Early Years Foundation Stage Pack (ref 00261-2008PCK-EN) can be ordered for free from the Department for Children, Schools and Families (DCSF) or downloaded from:
http://publications.teachernet.gov.uk/default.aspx?pageFunction=productdetails&PageMode +publications&ProductId=DCSF-00261-2008

Materials from the Early Support programme can also be ordered for free from DCSF or downloaded from: **www.earlysupport.org.uk**

The Early Support programme materials include:

* Information for Parents: Visual impairment – contains general advice and information (ref ES8)
* The Developmental Journal for Babies and Children with Visual Impairment – helps parents support their child's progress in the early years (ref ES50).

To order any of these publications, call the DCSF Publications Helpline on 0845 60 222 60.

ClearVision Library
A UK postal lending library of mainstream children's books with added Braille. The books all have Braille (or Moon), print and pictures, making them suitable for visually impaired and sighted children and adults to share.
www.clearvisionproject.org

Living Paintings
Living Paintings supplies a free library of living picture books and packs for children and introductory packs of touch and sound books for three separate age groups.
www.livingpaintings.org

The RNIB library catalogue has over 170,000 items available for loan and/or sale in audio, large and giant print, Braille and Moon: **http://librarycatalogue.rnib.org.uk**

Healthy Books: books for children about visual impairment
The books listed on this website may be of interest to anyone working with children, particularly children with physical or emotional problems. Browse the 'Sight' section for books about visual impairment.
www.healthybooks.org.uk/category/34

Bumpons
A simple and effective way to mark everyday items. The raised bumps are supplied on self-adhesive sheets and available in a range of sizes, shapes and colours. Available from:
http://onlineshop.rnib.org.uk/shoptab.asp

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Wikki Stix

Endlessly reusable flexible strips that can be bent, stuck together and pressed on to most surfaces to form creative and colourful tactile pictures. They are made of a non-toxic wax formula in a yarn strand. Available from: **http://onlineshop.rnib.org.uk/shoptab.asp**

Braille teaching materials

A range of teaching materials aimed at children learning Braille, including reading packs for different abilities, is available from RNIB's online shop: **http://onlineshop.rnib.org.uk/shoptab.asp**

Further reading

Books for Professionals

This service keeps parents and professionals informed about RNIB books as well as titles of interest from other specialist publishers around the world. To keep up to date with recommended new titles and special offers you can sign up for the free monthly eNewsletter.
www.rnib.org.uk/professionals/booksprofessionals/pages/booksforprofessionals.aspx

Focus on Foundation

This second edition combines the ideas and expertise of many early years practitioners and qualified teachers of children with visual impairment. It is packed with practical ideas for the successful inclusion of children with sight loss, for anyone working in early years settings, including nurseries, reception classes, children's centres, playgroups and out-of-school clubs.

RNIB, 2008, Focus on Foundation: Including children who are blind or partially sighted in early years settings, Clear print paperback, ISBN 9781858789170 – available from:
http://onlineshop.rnib.org.uk/shoptab.asp

Playtime (formerly Toy catalogue)

Produced with the British Toy and Hobby Association, this catalogue lists over 100 toys selected for their suitability for children with little or no sight. The toys are available in many high street shops and can be enjoyed by all children. Free of charge.

RNIB, 2008, Playtime: Toys and ideas for young children with sight loss, PR10893 (Print– available in other formats on request). Available from: **http://onlineshop.rnib.org.uk/shoptab.asp**

Teaching Pupils With a Visual Impairment

A key practical guide to making learning accessible for primary and secondary school pupils with visual impairments, this user-friendly book shows how, with appropriate support, pupils with visual impairments in mainstream schools can have as rewarding an experience of education as their sighted peers.

Salisbury, R (ed), 2008, Teaching Pupils With a Visual Impairment: A guide to making the school curriculum accessible, David Fulton Publishers.
Available from **www.routledge.com/books**

Objects of reference

A key book by Dr Adam Ockelford, providing comprehensive information on the use of objects of reference with learners with visual impairments and complex needs.
Ockelford, A, 2002, Objects of Reference: Promoting early symbolic communication, RNIB ED290.
Available from: **http://onlineshop.rnib.org.uk/shoptab.asp**

Insight

This magazine for professionals working with children and young people, as well as for parents and carers, is published bimonthly. It focuses on the education, health and well-being of children with sight problems, including those with complex needs. Regular features include eye health, family life, early years, the curriculum and access to learning.
For up-to-date subscription details, visit: **www.rnib.org.uk/livingwithsightloss/copingwithsightloss/parentsplace/magazinesnewsletters/insightmagazine/Pages/Insight_magazine.aspx**

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