This is a short introduction to sight problems to get your staff thinking about visual needs.
Show this 90 second video to establish what the problem is. It demonstrates how much learning is visual and how much audio description is required to make content accessible.
Audio description - of what the tasks are so that they can be played back again at the pupil’s convenience
Electronic documents - which can be changed by the VI student to suit their needs
Lighting - even light is better than direct light which can cause glare; don’t stand in front of a window when teaching. You will be in shadow
Emotional support – talking through what is going on and giving commentary can help with potentially stressful situations for VI students
One thing that can help students become independent learners is a set of audio instructions which they can control and play back as often as they need to, rather than asking for instructions to be repeated or clarified. Imagine if at the start of a journey, your Sat-Nav gave you all the directions for the whole journey, without any opportunity to hear them again.
Electronic documents give students more control over how the information is presented. They might find different combinations of text and background colour are easier to read, or prefer a text-only version, or one they can zoom into, or have read out to them using text-to-speech software.
Good for Instagram, not for the classroom. Don’t stand with a light source behind you, and be aware of glare – whether from display screen, or light reflecting off boards, as both make it hard to read.
Emotional support – talking through what is going on and giving commentary can help with potentially stressful situations for VI students.
Some key strategies to use

- Touch, smell, and hear – use the other senses
- Make the teaching content real – use objects you can hold and explore
- How else can you present visual information:
  - audio
  - objects
  - electronically?

The aim of this slide is to start thinking of ways to help VI students. These strategies will help to plan and implement useful ways to give access to all subjects. Emphasize the need to consider all the senses. Point out that making things bigger may not be the answer. This is an example of how what we may think will work may not and why it’s important to work with the student to meet their needs. Also talk about making things "real" – handling objects, artefacts, close to first hand experiences and making sure you have the buddies which mean those experiences can take place.

Raise this question as a potential drawback teachers may identify. Will this cost too much?

The answer: "Not necessarily" we can make small adjustments which cost little or nothing. It's not a case of translating everything at all times but listening and adapting what is practical to do.

Translating from text to audio takes seconds. Preparing does take time but be realistic, don't over plan – make adjustments that are achievable and practical within the lesson.
In the lesson allow your VI student time – time to process information, time to respond. A couple of changes to current practise can make a huge difference.
Advice for teachers in...

- Literacy
- Mathematics
- Science
- Design technology
- Art
- ICT
- Music
- History
- Geography
- Sport
- School trips

Download at www.macularsociety.org/teaching
Literacy

- Raised dots show start and finish on a document
- Cardboard tabs on pages aid the student to find a chapter or page
- Magnification – through an ocular or mobile phone magnifying app
- Optical character reading apps like ClaroSpeak Plus read printed materials out loud
- Speech recognition such as Siri, the Google Assistant or Cortana

This slide is not comprehensive. For more information refer to the relevant Teaching Tips for Literacy download.

For more responsive teams ask them to share experiences of what has worked for these pupils in the past. What methods have worked? What resources have they used?

If the group need more support and encouragement then go through the content giving an example of how they might use in their teaching. For instance the raised dots idea or markers are very useful for any reading activity done in a class
Mathematics

- Does the VI student need the graph?
- If it represents an object, could the object itself be used?
- Or could it be made tactile using a 3D printer or a simple model?
- Speaking calculators and text-to-speech software
- Start and finish positions
- Apps and software keep numbers in the right column

Ask the group to suggest activities that someone with visual problems would find difficult to do.

Or

List the points above but mention that this is only a snapshot of what can be done and that more information is in the downloadable resource.
Science

- Touch, feel and sound
- Can the activity be handled and explored?
- Markers on equipment help students find the handle or place
- “Visual language” to describe the object or activity
- Support assistants and peer support to audio describe

Touch and feel - use two-handed exploring so the pupil can fully understand the object(s) being studied.
Visual language - so that the VI student can have a fuller idea of what is being shown or done. This is surprisingly hard work. So maybe pick one lesson or object to audio describe.
1:1 support is important for most VI students
Design technology

• Yellow tapes around tool handles
• Jig tools to cut and make products
• Thick marker pens for marking out materials
• Clear outline for tools to be stored in
• Clutter-free space, large print labels
• Experience different materials by touch, feel and smell
• Time for processing instructions and individual support

Some simple tips that can be used. Safety in the workshop is the first concern. If using power tools no trailing flexes. Have equipment clearly marked and stored in the same place.
Art

- Tactile materials – sculptures, natural forms
- Encourage students to use what sight they have
- Add scents and textures to model-making materials
- Adapted drawing board – The Draftsman
- Painting – use contrasting colours
- Photography – edit on a screen or iPad where the screen can be easily magnified

Art is an essential subject despite the misconception that people with visual impairment aren't capable.
ICT

- Allow the VI student to share with the class what ICT they use
- Tactile means to find and handle the equipment
- Mobile devices to capture lessons and share ideas
- Screen-sharing from the teacher directly to the student
- Virtual reality – emerging technology which may help some VI students
- Assistive technology – apps, hardware, software and online services

ICT is a practical subject which VI students may depend on for life skills. Draw from their experience. Seek ways to adapt your lesson and make it more real to them by using Assistive Technology.
Music

- Yellow tape on instruments handles
- Instrument with a high tactile quality, like a cabasa
- Musical dialogue through repetition and pauses
- Routines at the beginning and end of sessions
- A VI student’s strengths may be in listening – can they describe tonal values, sustain, expression?

This practical subject may be a place the VI student can shine. Maybe increase self-esteem by letting them lead the session where appropriate
History

- Tactile exploration of maps, charts, diagrams and artefacts
- Sound recordings can enhance understanding of historical events
- Encourage historical enquiry by referring to objects and events using all the senses:
  - How does it smell?
  - What would it have sounded like?
  - How does it feel?
- Explore items closely, making use of residual sight

Using our senses would engage pupils more with historical events. New technology like Virtual Reality is a new method to explore as it emerges from this sensory approach to the subject.
Geography

- Tactile displays or relief models for maps, charts, diagrams
- Smell is a powerful sense for memory
- Touch and feel rocks and minerals
- Magnification through large screen display or mobile devices
- Time for the pupil to process information
- Information in audio and large print

Making use of all the senses including smell in your teaching. Make small changes to your lessons can really help pupils with visual impairments.
Sport

- Equipment which makes a sound such as balls with bells in
  Yellow tape or cones to mark out field events, gym activities
- Instructions in audio and large print beforehand
- Don't stand with the sun behind you
- Training and sports partners are essential to track and team events

Safety is paramount, emphasise this and also the need for training/sport's partners as well as adapted equipment.
School trips

- As you would with any trip - but from the standpoint of a visually impaired student
  
  - Risk assessment – obstacles in pathways, routes, activities
  - Preparation – pre-visit with someone who knows the VI student
  - Implementation – 1:1 buddy support giving audio description
  - Post trip follow-up – what worked? What could be done better next time?

The last point means the teachers should start the trip from the point of view of inclusion but then emphasise the need for meeting needs by reasonable adjustments.
Download resources to make a range of subjects more accessible for VI students: www.macularsociety.org/teaching

The Macular Society can put families in contact with each other to offer peer support, and provide counselling for parents struggling with their child’s diagnosis.

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