



Which colour helps you best?

Each section on this 2 page spread shows one of our 10 colours in the Visual Stress range. Is one of them more comfortable for you?

Purple

What is visual stress?

Yellow

Visual stress is also termed Meares-Irlen or Irlen Syndrome and is sometimes referred to as Visual Dyslexia. It describes the difficulties that some people experience when viewing text for long periods. It is a problem that is often associated with (although not exclusive to) dyslexia.

Visual stress is thought to result from specific wavelengths in the colour spectrum over-stimulating certain parts of the visual cortex, disturbing the perceived image of black text on white background. Changing the coloured background to a tint that filters out the disruptive wavelengths can dramatically improve aspects of visual perception involved in reading and writing.

When a person has the right tint, attention span, reading speed, fluency and comprehension can all improve. Research has shown that around 20% of the population suffer to varying degrees from visual stress, and could benefit from reading through - and writing on - colour.

Sky Blue

Are visual stress and dyslexia connected?

Visual stress is often called visual dyslexia. However the two difficulties are separate and someone can have visual stress without having dyslexia. The link has probably arisen because the two difficulties often co-occur (about 35% of dyslexics also have visual stress). Therefore, it is important to not only assess individuals who have Dyslexia for visual stress, but anyone who may struggle with reading. See the Visual Stress quick check list on the opposite page for signs to look out for in Visual Stress.

Aqua Blue

Do we say visual stress, or visual difficulties?

While we recognise that not all the visual difficulties that can be supported by the use of coloured overlays or tinted paper, and that this is particularly important in the area of diagnostic assessment, it remains true that the most commonly encountered visual-perceptual difficulty that affects reading is the hyperexcitation of the visual cortex that scientists have termed "visual stress" and which can be alleviated by use of the appropriate overlay or paper.

Reading rulers, overlays, or tinted lenses?

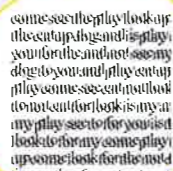
For anyone with visual stress, tinted spectacles can offer the best solution. However, assessment and lenses can be expensive, and an even bigger hurdle is the likelihood of a 12-year old boy wearing pink glasses to school. So often the best choice is between reading rulers and overlays.

An extract from 2019 research carried out by psychologists from Birkbeck College University of London, comparing the two solutions on children aged 4-8. The study found that

- A page overlay increased reading speed by up to 38.34%,
- A duo reading ruler increased it by up to 31.54%.
- Children with the most overt signs of visual stress preferred the reading rulers, and after three months more children preferred reading rulers to overlays. The full study can be found on our website.

Celery Green

1.



2.



3.



Would you like some training on visual stress?

We provide CPD accredited courses, please contact us for more information on 01785 782950 or email us at support@visualstressolutions.com



Orange



Visual Stress Quick Check List

Many sufferers don't realise that their experience isn't "normal". So how do you spot those who are experiencing symptoms of visual stress?

This checklist isn't exhaustive or infallible, but is a useful tool to help you spot the children who might benefit from coloured resources. Watch out for the ones who...

- Experience increased difficulty reading after an initial period of 5-10 minutes.
- Lose their place easily when reading, often skipping words or lines.
- Frequently blink, rub their eyes, and look away from the page.
- Keep moving their head or body restlessly, or move closer to or further away from the page.
- Track with their finger.
- Screw up their eyes at a page of text.
- Experience problems copying from the board.
- Avoid reading.
- Read slowly and haltingly.
- Yawn or seem to tire quickly while reading.
- Seem particularly sensitive to bright lights, especially fluorescent lighting.
- Experience eye strain/discomfort/pain when reading or doing computer work.
- Regularly suffer headaches and/or migraines.

Magenta

Jade Green

Symptoms

Visual stress symptoms vary, but can include:

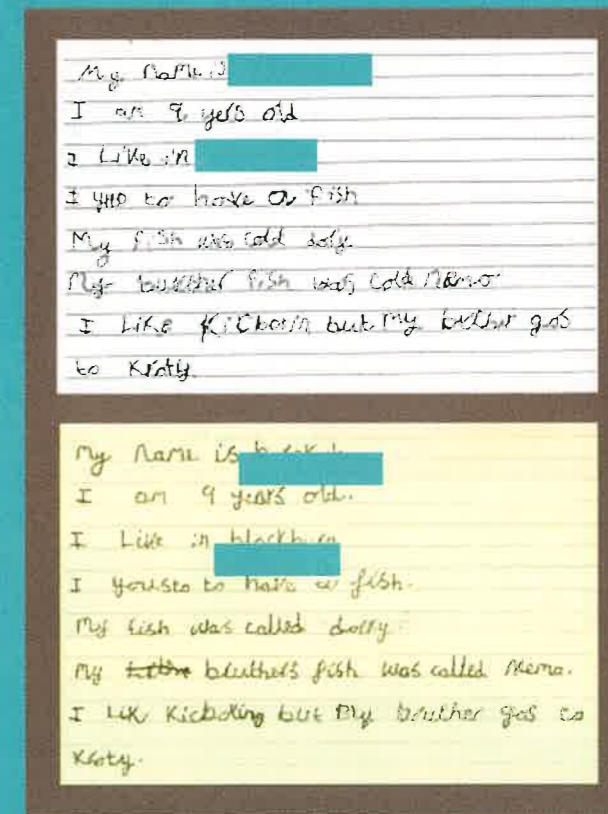
- Movement of print (words appearing to "jump" or move on the page)
- Whole lines of text may appear to move
- Blurring of print
- Letters seeming to change size
- Doubling of letters (example 1 right)
- Letters fading
- Patterns appearing
- Illusions of colour blobs moving across the page distracting the reader or obscuring the words
- White "rivers" appearing to run down the page where the white background, as opposed to the black text, has become the dominant image perceived. (example 2 right)
- Swirling effects appearing in the text (example 3 right).

Grass Green

Pink

The difference colour can make to writing

Same child... Same day...
One difference: Tinted Paper



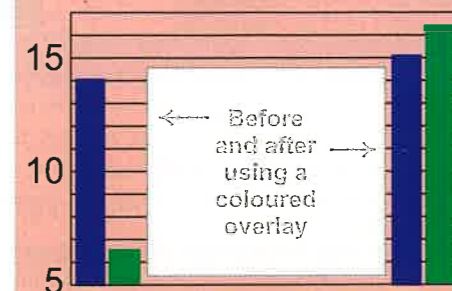
The child has improved in several ways when writing on the tinted paper:

- Improved presentation and handwriting.
- Improved spelling:
- yers → years
- cold → called
- The town, concealed to protect the child's identity, was also spelled correctly on tinted paper, and mis-spelled on white.
- 'used to', 'brother' and 'kickboxing' are also all much closer on tinted paper.

(Examples courtesy of N.E. Lancashire Dyslexia Association.)

The difference colour can make to reading

One case study: girl; year 10



- Chronological age
- Reading age

The two columns here show the approximate reading age of a 14 year old girl before she started using a coloured overlay, and the result after 12 months of reading through colour. These are particularly dramatic results, but illustrate how life-changing this simple intervention can be at times.

