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INFORMATION SHEET

COLOUR VISION DEFICIENCY (CVD)

“Colour Vision Deficiency” is a deficiency in the way colour is perceived. Red-green deficiency is the most common form of colour blindness affecting about 1 male in 25 and about 3 in 100 women. Blue-yellow deficiency is not so prevalent, and total colour-blindness (achromotopsia) is extremely rare. Most children and young people with CVD are unaware they have the condition until it is discovered in a test.

Colour deficiency is an untreatable condition of the retina. It is caused by certain specialised cells (cones) which are responsible for the perception of colour, not responding as they should. It is a hereditary condition which occurs mainly in men although it can be genetically transmitted through women. Ageing or disease can also damage retinal cells and in extreme cases can lead to almost total colour loss.

Children and young people with CVD do not see in black and white or shades of grey. Instead they have a less vivid perception of a certain colour or colours and are able to perceive a narrower range of shadings.

Children and young people with CVD can learn alternative ways to deal with their difficulty. For instance clothes can be labelled and/or organised on different shelves/drawers to avoid colour clashes.

Remembering the order of things is helpful. For example the green light is at the bottom of the traffic lights.

What to look out for in school

Educational Implications

Try not to depend solely on colour to convey information.

Recommendations:

- Keep worksheets clear and uncluttered
- Coloured fonts can be underlined or in bold or a different font (avoid italic script as this is not easy to read)
- Use high contrasting colours to make sure text stands out from its background e.g. black on white, dark blue on white, black on yellow
- Use crayons/pencils with the colour name taped to them to provide a positive clue for colouring
- Name coloured paint pots
- Maps can have different textures or different patterns
- When correcting work use a black pen rather than red
- Avoid using a red ball in PE. On green grass it will be almost “invisible” to the student
- Use a black pen for the whiteboard
- Encourage the student to differentiate between shades of light and dark. The student will learn, with the patience of the teacher, to recognise which colours are which independently.

Spotting the Early Symptoms of Colour Vision Deficiency in Children

The early diagnosis of colour deficiency vision may help to prevent some learning difficulties at school.

What to look out for:

- the main symptom of colour vision deficiency is a difficulty in distinguishing colours or in making mistakes when identifying colours
- using the wrong colours for an object – e.g. purple leaves on trees, particularly using dark colours inappropriately
- low attention span when colouring in work sheets
- problems in identifying red or green colour pencils or any colour pencil with red or green in its composition (e.g. purple, brown)
- identification of colour may be made worse by low level light, small area and colours of the same hue
- smelling food before eating
- sensitivity to bright lights
- reading issues with coloured pages or work sheets produced with colour on colour
- children may complain that their eyes or head hurt, if looking at something red on a green background, or vice versa
- colour blind children may not like to colour in pictures or want to play counting or sorting games with coloured blocks or beads.

For more information: <https://www.whitefield.org.uk/page/?title=Booklets&pid=207>

Colour blind awareness at: <http://www.colourblindawareness.org/colour-blindness/living-with-colour-vision-deficiency>