

## Colour Blindness

Here are some strategies to help schools meet the needs of children with colour blindness. The needs of children and young people with colour blindness can be met through Quality First Teaching and simple strategies used in the classroom. In the majority of cases these children and young people do not require specialist interventions from a Qualified Teacher for Visual Impairment. The information in the universal section of the Mainstream Core Standards for VI and the Best Practise Guidance for settings will also be useful.

### What is Colour blindness?

Most children who are colour blind are able to see things clearly, but they are unable to fully 'see' red, green or blue light. There are different types of colour blindness and in extremely rare cases children can be unable to see any colour at all, which is known as achromatopsia.

The most common form of colour blindness is red/green colour blindness. Although this form of colour blindness is common there are different types and severities of it. Being red/green colour blind doesn't mean children only mix up red and green, it can also mean that they mix up colours which have some red or green in them as part of the whole colour. A child with red/green colour blindness may confuse blue and purple because they don't 'see' the red element of the colour purple. Children with red/green colour blindness find it difficult to distinguish between reds, greens, browns and oranges and commonly confuse blue and purple hues.

In some cases, children may have reduced sensitivity to blue light and would find it difficult to identify the difference between blue and yellow, violet and red and blue and green. For these children they 'see' the world generally in red, pink, black, white, grey and turquoise.

Children with achromatopsia 'see' the world as different shades of grey ranging from black to white.

Most people are able to adapt to colour vision deficiency and it's rarely a sign of anything serious.

### General strategies

- Good ambient lighting conditions and additional task light in poor light conditions. However, for those children with achromatopsia, bright lights can be uncomfortable for them so they would need to be sat away from direct light.
- Time to learn the colours as they see them. They will need to be taught the colours and learn them as the hue that they see.
- Encourage children to ask questions about colours.
- Endeavour to differentiate any work that relies on good colour vision.
- Use primary colours instead of pastel shades. Colours with a black outline around them may be easier to see.

- Answers that rely on good colour vision can cause anxiety as the child may not be able to answer the question or know why their answer is wrong. Modifying the question or explaining the colours used can help overcome this.
- Additional time when looking at coloured images or objects. Colours will need to be explained and pointed out to them so that they are aware of what others are looking at.
- Label coloured pens and pencils so that they child can use the right colour to complete tasks.
- Avoid using instructions that relate to colour or describe where things are using colour, eg. it is in the blue box.
- Colour used in diagrams, eg maths charts and graphs, science diagrams, will need to be adapted to enable the child to access them independently. The colours used will need to be adjusted to the individual child's colour blindness or use patterns instead to identify different sections e.g. crosshatching or lines.
- Older children can have special arrangements for exams that include work that is reliant on colour recognition, such as OS maps in geography.
- Ensure all curriculum resources that use colour are explained to the child so that they can make sense of what they are looking at. Reinforce the generally accepted use of colours eg. grass is green, tomatoes are red.
- Be aware that practical resources like Unifix cubes or Numicon in maths will be difficult to use without additional support
- Be aware of the use of colour in books and in ICT programmes and provide additional support and explanation to help with this.
- Where possible, avoid putting colours adjacent to each other that the child is unable to distinguish between.
- When marking children's work, the colours used in the marking policy may need to be adjusted.
- Markings on the sports field or in the school hall/ gym may not be easily seen so will need to be pointed out and time allowed for the child to acquaint themselves with where everything is.
- Support with traffic awareness, specifically reading the 'green and red man' at road crossing.
- Children with achromatopsia will possibly need to wear dark glasses when inside and there are normal light conditions.