

STLS Sensory Service

Depth Perception

Here are some strategies to help schools meet the needs of children with difficulties with depth perception

Depth perception is the ability to see things in three dimensions (including length, width and depth), and to judge how far away an object is.

For accurate depth perception, you generally need to have binocular vision. In a process called convergence, our two eyes see an object from slightly different angles and our brain compares and processes the two sets of information to form a single image. When both eyes see clearly and the brain processes a single image effectively, it is called stereopsis.

People who rely on vision primarily in one eye (called monocular vision) may struggle with depth perception. However, some people who have had good vision in one eye for a long period of time may find they have acceptable depth perception. This is because their brain has adjusted in various ways to make up for the limited visual input from one eye.

Some conditions that can cause depth perception problems include:

- Blurry vision, usually in one eye
- Strabismus
- Amblyopia
- Nerve problems in one eye
- Trauma to one eye

General strategies

- Use a reading slope to allow the child to look straight ahead rather than downwards when reading or looking at pictures.
- Ensure text is the most appropriate size. The Specialist Teacher for Vision Impairment can advise on this.
- Use brightly coloured equipment for PE activities or outdoor play so that they are well contrasted against the floor. This will make equipment easier to locate.
- The use of brightly coloured balls or bell balls may help in fast moving sports such as football so that the ball can be tracked more easily.
- In PE lessons where the activity involves a ball being thrown to the child, it would help to call their name so that they can prepare to receive it. Practise in catching balls at different distances may help so that they can build strategies that could then be transferred to small sided games. Start by using a balloon

or lighter ball to allow the child time to gauge the speed of the ball to prepare to catch it.

- Keep the layout of the room the same where possible and have clear walkways that are free of clutter.
- Allow the child to find the best position to visually access the whiteboard or focus of the lesson.
- The child should be encouraged to hold the handrail when walking up and down stairs.
- Highlight kerbs and steps. with yellow paint or tape.