## **Sensory Integration**

The brain receives inputs from the various senses i.e sight, hearing, touch, taste and smell and must use that information efficiently to accurately understand the world around us. When the brain cannot integrate the information it receives, the result is an inaccurate model of the environment and an inability to function well within it. For example:

SIGHT (VISUAL): – If a child has difficulty focusing and tracking an object in space they may see a distorted view of a page when reading (words jump about on the page) or they may be able to read the words but not understand what they have read. They may find is difficult to hold eye contact, concentrate and may be very easily distracted.

HEARING (AUDITORY): -. If the Auditory system is not integrating efficiently with the other senses a child may be overly sensitive to noise, find it hard to concentrate, have difficulty interacting socially and may display disruptive behaviour as a result.

TOUCH (TACTILE): – If a child's sense of touch is not connecting efficiently with the brain he or she may not be able to wear certain clothes eg socks, jeans, shoes etc. They can also feel that other children are closer to them than they are in reality which links into their spatial awareness. This can lead to pushing in the line-up in school! Alternatively a child can have difficulty sensing touch at all and therefore not feel pain and have a need to throw themselves off walls, floors, sofa's etc as

they search for sensory input.

TASTE and SMELL (Gustatory and Olfactory): – Children whose senses of taste and or smell are not integrating properly may be classed as 'fussy eaters'. They may refuse to try foods that they have not tried before as the smell may be a deterrent before the food is put near the mouth.

Individuals that have a sensory integration/processing disorder can improve the ability of the brain to receive and process information through an approach that addresses the fundamental brain processing issues that are responsible for the lack of sensory integration ability.

Our three-dimensional model of the world provides the framework into which all our sensory data must be evaluated. Because the balance system (vestibular) is the basis of this three-dimensional model, our effectiveness in communicating information accurately between the senses and to the brain is limited by the precision of the balance system. This is the reason that all program activities take place on our specially designed balance board.

The Performance Breakthrough Program is a series of natural activities that improves sensory integration and processing to make our brains perform more efficiently. Our program recognises the importance that balance has on all our sensory inputs and how these in turn impact higher level cognitive objectives.