Your Brain in a Sensory Garden

Sniff! Blink! Yum! Ding! Soft! All words used to describe our senses and how we take in information. When you think about it - the way to our senses is through organs and structures that have evolved over time - our nose, eyes, lips, tongue, ears, fingers, skin, feet, etc.

Consider what is happening as you look at a flower - it is both the light and smell that triggers the brain chemicals and integrate together to give us this overall picture of the flower and where it is in relation to space and time.

But, did you know there are more than five senses? While most of us are familiar with sight, smell, touch, taste and sound - there are two lesser known senses that refer to our movement and balance (vestibular) and our body position (proprioception). Our brain must register, select, interpret, compare, and associate this sensory information in a flexible, constantly-changing pattern at any given time. When working together all our senses allow us to perceive and experience the world. This integrated process between our brain and sense enables us to interact with our environment appropriately. Below are videos (click on highlighted words in blue) and information to introduce you to what is happening in our brains when in a sensory garden:

Sight is the capability of the eyes to focus and detect images of visible light and the brain processes these impulses through comparison with experiences made earlier in life. If what you're seeing is new, the brain records the information for future reference.

Smell is our nose's ability to detect scent based on hundreds of olfactory (smell) receptors. The odor is coded in the brain's "chemotopic" map and then interprets it to better navigate the environment. Think how smelling a rose can add to our sense of wellbeing- in contrast, how smelling smoke alerts us to danger.

Taste is a combination of taste and smell together. We receive taste through our papillea (aka as taste buds) which are developed at birth and diminishes when we grow older. Like the sense of smell our sense of taste serves our quality of life but also our protection - that is, it warns us in relation to poisonous things we might ingest.

Hearing is the ability to perceive sound by vibrations and changes in the pressure of surrounding the ear. As with sight, the brain recognises sound based on location, differentiation and interpreting the sound, and memorizing for future needs.

Touch results from tiny hair follicles responding to pressure (firm, brushing, sustained, etc.). At its simplest, touch works when the hair follicles are triggered by a specific stimulus (such as heat) the signal then being passed on to the part of the brain which has been uniquely attributed to that area on the body being touched and allows it to be felt at the correct location.

Vestibular is the perception of our body's ability to combine hearing in relation to movement and balance. The vestibular helps us to develop and maintain muscle tone (to hold our body or head up) and influences our balance.

Proprioception is the sense of knowing exactly where our body parts are, how we are positioned in space and to plan our movements - such as clapping our hands together with eyes closed.