**Prefrontal Cortex**
This is in charge of executive functioning.
- It organises our behaviour in social situations.
- Response inhibition
- Response appropriate to social context

**Phineas Gage** - accident in which a large iron rod was driven completely through his head, destroying much of his brain's left frontal lobe, and for that injury's reported effects on his personality and behaviour over the succeeding twelve years. Friends said he was "no longer Gage" – suggests that frontal lobe is responsible for social behaviour.

**Limbic System**
Nobody is sure of it's exact constitution.
It appears to have a lot to do with:
- Emotion
- Memory
- Motivated behaviour (ie. Eating, drinking, reproducing)
Significant parts include Hippocampus (memory) Amygdala (emotional significance) Hypothalamus (which controls hormones) and Olfactory structures.

**THE HYPOTHALAMUS AND THALAMUS SIT EITHER SIDE OF THE 3RD VENTRICLE.**

**Hypothalamus**
The hypothalamus is a portion of the brain that contains a number of small nuclei with a variety of functions. One of the most important functions of the hypothalamus is to link the nervous system to the endocrine system via the pituitary gland (hypophysis).
The hypothalamus is located below the thalamus, just above ventricles system. (In the terminology of neuroanatomy, it forms the ventral part of the diencephalon. All vertebrate brains contain a hypothalamus. In humans, it is roughly the size of an almond.

The hypothalamus is responsible for certain metabolic processes and other activities of the autonomic nervous system. It synthesizes and secretes certain neurohormones, often called releasing hormones or hypothalamic hormones, and these in turn stimulate or inhibit the secretion of pituitary hormones. The hypothalamus controls body temperature, hunger, important aspects of parenting and attachment behaviours, thirst, fatigue, sleep, and circadian rhythms.

**Thalamus**
The thalamus is a midline symmetrical structure of two halves, within the brains of vertebrates, situated between the cerebral cortex and the midbrain. Some of its functions are the relaying of sensory and motor signals to the cerebral cortex, and the regulation of consciousness, sleep, and alertness. The thalamus surrounds the third ventricle. It is the main product of the embryonic diencephalon.