**Limbic System, emotional and memory brain**

Forms the core of the brain between the cortex and brainstem
Involved in instinctive behaviours, emotions, basic impulses and drives
Such as sex aggression pleasure survival etc

**Amygdala** - assesses info for emotional significance, adds emotion to memories (it is key in long-term memory storage because it gives memories meaning)
Part of the fear response, hard-wired ANS response linked through the hypothalamus (strong emotional like fear causes a strong ANS response)
Higher heart rate=higher breathing rate, adrenaline
Nuclei of the amygdala are affected by sex hormones therefore they are different in the sexes (different feeling emotions)

**Hippocampus** - major memory formation and recall
Passes working memory (prefrontal cortex) to long-term memory areas in the cortex
Linked to hypothalamus and amygdala therefore emotional content is linked to memories
Damage to Hippocampus:
Does not effect short term memory

**2 types of amnesia**
**Anterograde**
Can't make new memories
**Retrograde**
Can't recall

**Hypothalamus and Tegmentum**
Bodily reactions and major dopamine centres (life motivation, sex and behaviour)
Damage to these:
Difficulty getting pleasure in life
Addictions (alcohol, gambling, eating, drugs)

**Mammillary Bodies**
Important for memory formation (objects) and memory recall

**Fornix**
Connection between mammilary bodies and hippocampus

**Cingulate Gyrus**
Sensory associations to memories