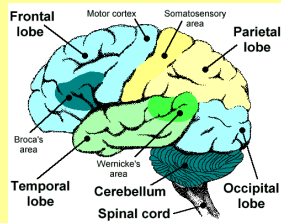


Cerebral cortex

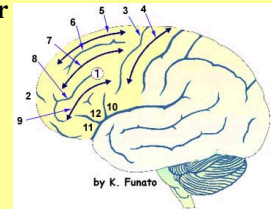
- The layer of grey matter covers the brain
- Gyri, sulci
- Fissurae – borders of cerebral lobes

Cerebral lobes

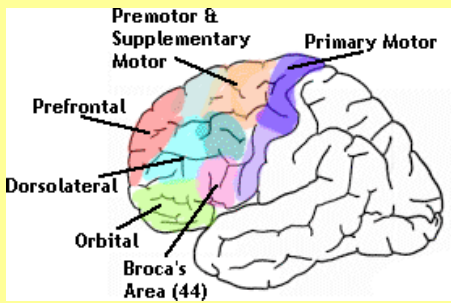


Frontal lobe

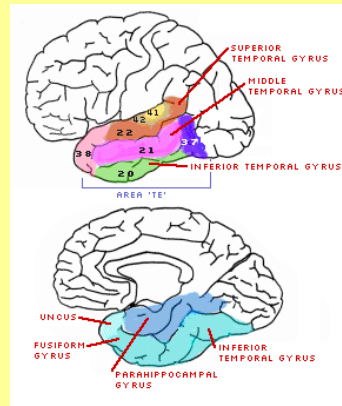
- From parietal lobe
- – sulcus centralis Rolandi
- 3 horizontal gyri
 - Gyrus frontalis superior
 - medius
 - inferior
- 1 vertical gyrus – gyrus precentralis



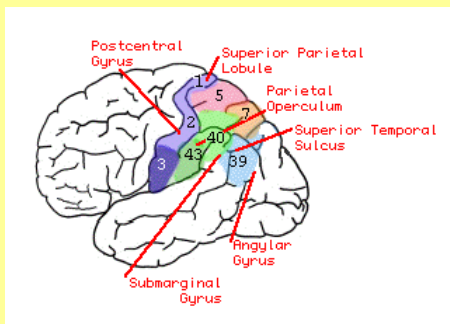
Frontal lobe



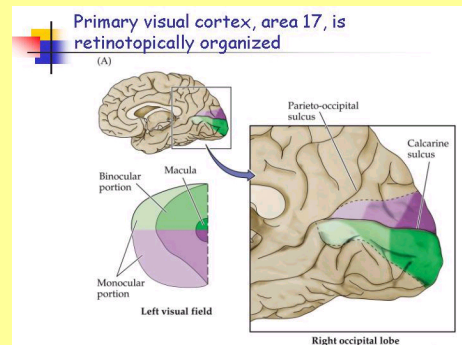
Temporal lobe



Parietal lobe



Occipital lobe

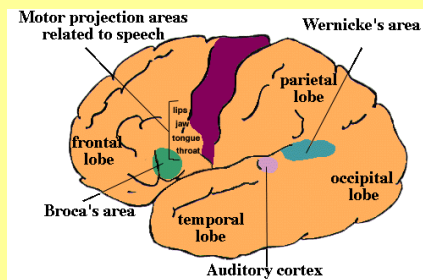


Cognitive functions – pathology

- **Motoric (expressive, non-fluent) aphasia** – inability to speak
- **Lower frontal gyrus** – dominant h.
- **Perseveration** – repeating own words
- **Amnesic aphasia** – inability to remember the words
- **Agrammatism**

Cognitive functions – pathology

- **Sensoric (perceptive, fluent) aphasia** – inability to understand speech
- **Upper temporal gyrus** – dom. h.
- **Auditory agnosia**
- **Surditus verbalis** – inability to speak – very rare



Cognitive functions – pathology

- **Sensoric (perceptive, fluent) aphasia** –
- **Neologisms** - new words –
- Patient does not know about his/her mistakes, logorrhoic
- Inability to have contact with other people

Cognitive functions – pathology

- **Agraphia** – inability to write
- **Praxia**
- **Gyrus frontalis medius** – dom. h.
- **Pure agraphia** – very rare

Symbolic functions – pathology

- **Alexia** – inability to read
- **Gyrus angularis** dom. h. (between auditory and visual analyzer)
- **Left occipital lobe** – lesion in connection between visual analyzer and gyrus angularis