



Instructions: No word bank: name the numbered parts from memory or from the module. Number the discoveries in order and write each date. Analyse the source, explain significance, then write full-sentence answers and plan the essay.

1. Name the parts (no word bank)



1 _____ 2 _____ 3 _____ 4 _____
5 _____ 6 _____ 7 _____

Did you know?

- Each neuron can connect to thousands of others.
- The brain itself has no pain receptors.
- Cajal and Golgi shared the 1906 Nobel Prize but disagreed about how neurons connect.
- Ancient Egyptians thought the heart, not the brain, was the seat of thought.

Background

Your brain controls everything you do: thinking, remembering, feeling, moving, even your heartbeat and breathing. An adult brain weighs about 1.4 kg and contains about 86 billion nerve cells called neurons. It uses about a fifth of all the energy your body makes. The brain is protected by the skull and cushioned by a liquid.

2. Timeline: order and date

Number the events 1 to 7 (1 = earliest) and write the date of each.

#	Event	Date
1	Vesalius describes the brain	
2	Cajal shows the brain is made of separate neurons	
3	Broca finds a language area of the brain	
4	Sherrington names the synapse	
5	Galen shows the brain, not the heart, controls the body	
6	Golgi's stain makes neurons visible	
7	Berger records brain waves (EEG)	

3. Source analysis

The nerve cells are like trees with many branches. Each is a separate unit, touching its neighbours but not joined to them, like a forest of separate trees.

Santiago Ramón y Cajal, on the structure of the nervous system (c.1890s), (paraphrased)

1. What does Cajal compare neurons to?

2. What is his main claim?

3. How did later science support him?

4. Significance

Scientist or term	Who or what? Why does it matter?
Santiago Ramón y Cajal	
Paul Broca	
Camillo Golgi	
Charles Sherrington	
Neuron	

5. Cause and consequence

1. Explain why damage to the brain stem is very dangerous.

2. Explain why wearing a cycle helmet matters.

6. Longer answers (full sentences)

1. Compare sensory and motor neurons.

2. Describe the path of a reflex when you touch something hot.

3. Explain what happens at a synapse.

4. How did Broca's discovery show that different brain areas have different jobs?

5. Explain in your own words: Explain what a reflex is and why it is useful.

7. Essay question

Essay: 'The brain is the most important organ in the body.' How far do you agree? Plan an essay.

Plan: introduction · point for (evidence) · point against (evidence) · conclusion with your judgement.
