

## Syllabus Checklist

On completion of this chapter you should be able to understand:

### 2.1 Biological influences/bases of behaviour

- functions of the major parts of the brain
  - hindbrain
  - midbrain
  - forebrain
  - left and right hemispheres
  - corpus callosum
- main features of the four lobes of the cerebral cortex
- structure of the neuron
  - cell body
  - axon
  - dendrites
  - myelin sheath
- methods for investigating brain function
  - external recordings – electroencephalography (EEG)
  - scanning techniques
    - still pictures: computed axial tomography (CAT) scan, magnetic resonance imaging (MRI)
    - dynamic pictures – functional magnetic resonance imaging (fMRI), positron emission tomography (PET) scan
  - case study – Phineas Gage

- factors that affect behaviour, emotion and thought
  - physical activity
  - psychological and physiological responses to recreational drugs – cannabis, alcohol and amphetamine

## 2.2 Cognition

- theories of intelligence
  - general intelligence – Galton, Spearman
  - measuring mental age and intelligence quotient – Binet and Simon, Terman
  - empirical approaches to intelligence – Wechsler
  - multiple intelligences – Gardner
  - emotional intelligence – Golman
- intelligence testing
  - advantages and disadvantages of group and individual testing
- the role of sensation and perception in cognition
  - sensory organs and stimuli
  - perception – illusions and distortions of visual perception
  - attention – selected, divided, habituation, dishabituation
- physiological responses indicating different states of consciousness
  - electrical activity of the brain
  - heart rate
  - body temperature
  - galvanic skin response

## 2.1 BIOLOGICAL INFLUENCES/BASES OF BEHAVIOUR



### Terminology

These are some of the terms from this section which you should know. Write the meaning of each term in the space provided.

(i) axon

---

(ii) cell body

---

(iii) dendrite

---

(iv) depressant

---

(v) hallucinogen

---

(vi) myelin sheath

---

(vii) physical activity

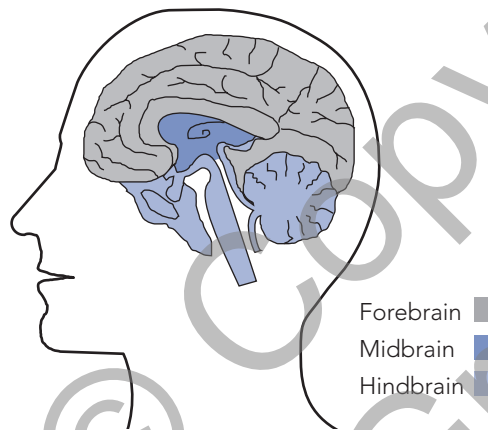
---

(viii) stimulant

---

(ix) recreational drug

---



## Review Questions

1. Describe the functions of the following parts of the brain:

Hindbrain

---

---

Midbrain

---

---

Forebrain

---

---

Corpus callosum

---

---

2. The left hemisphere of the brain controls the right side of the body and vice versa. Explain the functions of the left and right hemispheres of the brain.

---



---



---

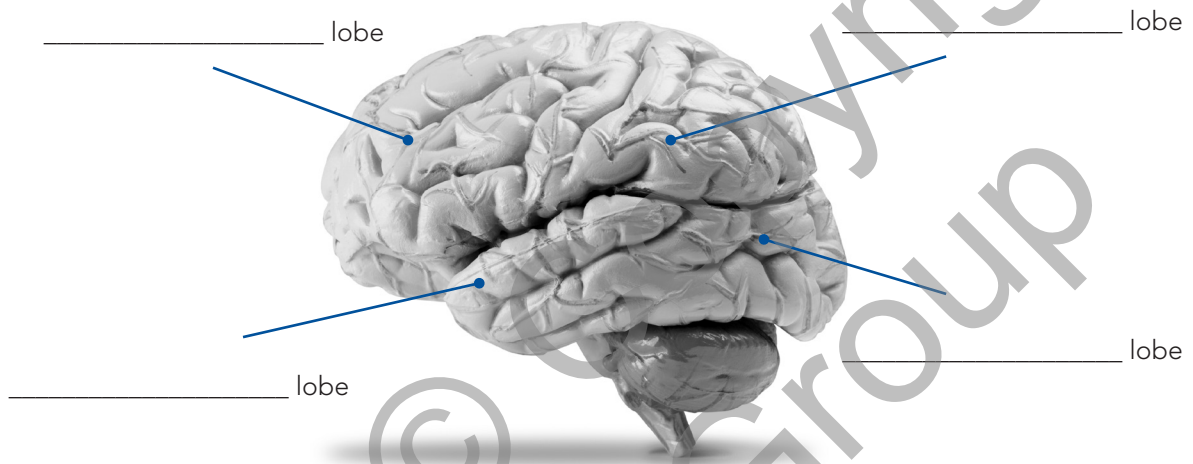


---



---

3. Label the four lobes of the cerebral cortex.



4. Describe the functions of each lobe of the cerebral cortex.

LOBE	FUNCTION
Frontal	
Occipital	
Parietal	
Temporal	

5. Draw a structure of a neuron and label the following parts: *cell body, axon, dendrites, myelin sheath.*

6. Fill in the table.

**METHODS FOR INVESTIGATION BRAIN FUNCTION**

METHOD	NAME	DESCRIPTION
External recording	Electroencephalography (EEG)	
Still Picture	1.  2.	1.  2.
Dymanic Picture	1.  2.	1.  2.

7. Case studies can also be used to investigate brain function. Animals and humans are used to examine damaged and healthy brains. Phineas Gage is one famous case study. Explain how Phineas Gage was able to assist researchers in investigating brain function.

---

---

---

---

---

---

8. Using empirical evidence, give two examples how physical activity can affect our wellbeing.

---

---

---

---

---

---

---

---

---

---

---

---

9. Fill in the table:

DRUG	TYPE OF DRUG	PSYCHOLOGICAL AND PHYSIOLOGICAL RESPONSES
Cannabis		
Alcohol		
Amphetamine		

## 2.2 COGNITION



### Terminology

These are some of the terms from this section which you should know. Write the meaning of each term in the space provided.

(i) altered states of consciousness

---

(ii) cognition

---

(iii) consciousness

---

(iv) dishabituation

---

(v) divided attention

---

(vi) emotional intelligence

---

(vii) general intelligence

---

(viii) habituation

---

(ix) illusions

---

(x) intelligence

---

(xi) intelligence quotas

---

(xii) mental age

---

(xiii) multiple intelligence

---

(xiv) perception

---

(xv) selected attention

---

(xvi) sensation

---

(xvii) visual perception

---

### Review Questions

1. What is intelligence testing?

---

---

---

---

---

---

---

---

2. Explain Weschler's empirical approach to intelligence.

---

---

---

---

---

---

---

---

3. Explain how mental age and IQ are measured.

---

---

---

---

---

---

---

---

---

---

---

---



4. In the table below summarise Gardner's multiple intelligence.

TYPE OF INTELLIGENCE	DESCRIPTION	EXAMPLES
Linguistic		
Logical		
Musical		
Kinaesthetic		
Spatial		
Interpersonal		
Intrapersonal		

5. Fill in the following table:

**INTELLIGENCE THEORIES**

INTELLIGENCE THEORY	THEORIST/S	EXPLANATION OF KEY FINDINGS
General Intelligence		
Multiple Intelligence		
Modern Intelligence testing – Empirical approaches to intelligence		
Intelligence testing – measuring intelligence		
Emotional Intelligence		

6. List the advantages of group and individual testing.

	DESCRIPTION	ADVANTAGES
Group Testing		<ol style="list-style-type: none"><li>1.</li><li>2.</li><li>3.</li></ol>
Individual Testing		<ol style="list-style-type: none"><li>1.</li><li>2.</li><li>3.</li></ol>

7. List the senses of the body.

---

---

---

---

8. For each of the senses above identify the types of stimuli.

---

---

---

---

---

---

---

---

---

---

---

---

9. How do illusions change our perception?

---

---

---

10. List three ways that our perception can be distorted.

---

---

---

11. How do the following indicate different states of consciousness?

(i) Electrical activity of the brain

---

---

---

(ii) Heart rate

---

---

---

(iii) Body temperature

---

---

---

(iv) Galvanic skin response

---

---

---

Sample © Copyright  
Academic Group