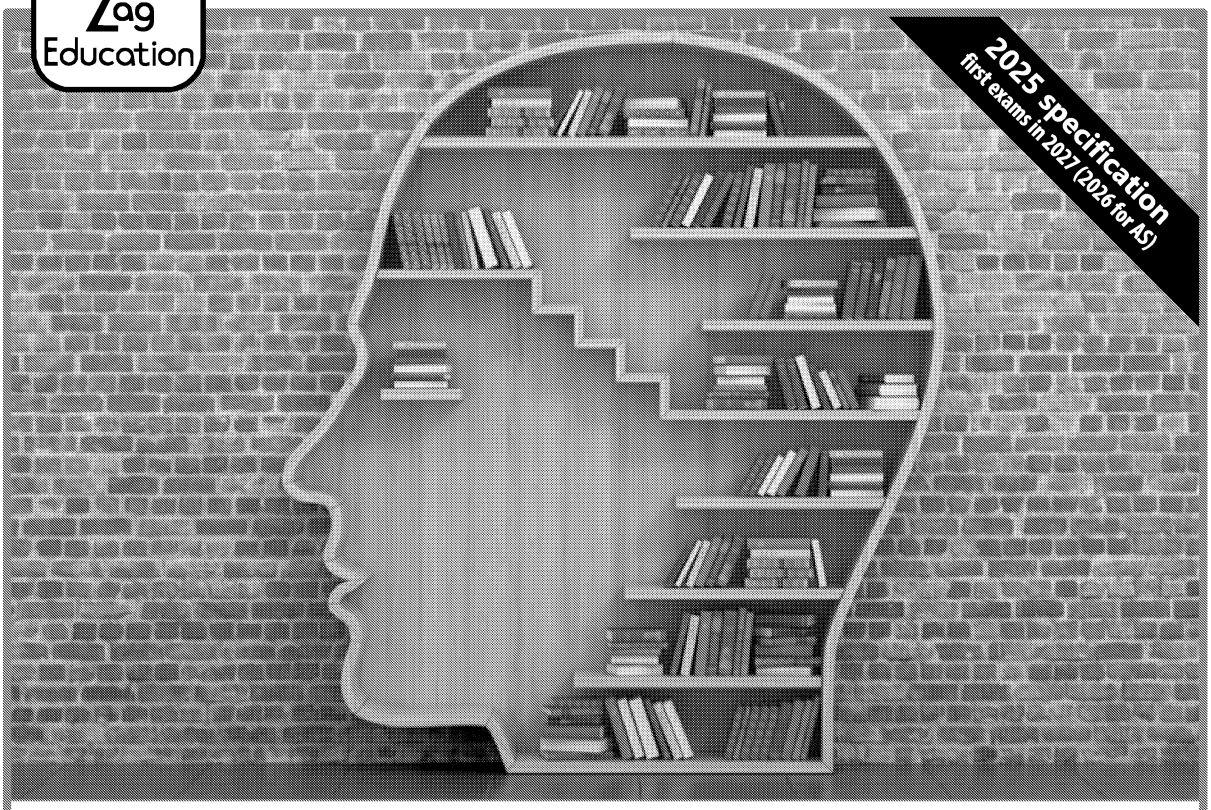
Zig Zag Education

Psychology

AS and A Level | AQA | 7181/7182



Topic Tests

for AS and A Level AQA Psychology

Paper 2: Psychology in Context

(AS 3.2.1) 4.2.1 Approaches in Psychology
(AS 3.2.1.1) 4.2.2 Biopsychology
(AS 3.2.3) 4.2.3 Research Methods

Update v1.1, November 2025

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Contents

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- Man with a headache courtesy of Phee

Teacher's Introduction

This resource is for use with A Level AQA Psychology and covers 4.2.1 Approaches in Psychology, 4.2.2 Biopsychology and 4.2.3 Research Methods which are examined in Paper 2: Psychology in Context.

Remember!
Always check the exam board website for new information, including changes to the specification and sample assessment material.

Each topic test starts with quick, short-answer questions that ensure the core, fundamental ideas of each topic are understood by the student. Questions then increase in difficulty and culminate with either exam-style questions or detailed activities which are engaging, help consolidate learning and give students the opportunity to practise applying their knowledge of research methods to various scenarios.

A range of question styles has been used to expose students to different question types and to give variety in the activities, as well as providing some questions in an exam-style format. There are questions embedded in the tests which assess students' research methods knowledge, which would be expected in their exams. Mark allocations and answers are provided, which are useful for peer- and self-assessment as well as providing you, the teacher, with an opportunity to assess students' strengths and weaknesses in order to inform the teaching and learning process.

A levelled marking scheme has been included for slightly longer answers. Teachers should use this firstly to determine an overall level and then to decide whether the answer meets the lower level, moving up to the next. They should then determine a specific mark within that level by judging the answer against the specific criteria.

Note that the research scenarios used and data provided are fictional.

A calculator will be required for use with Topic Test 18.

Specification reference table
This table can be used to identify which specification points you are teaching and select the appropriate topic test to suit your needs. Note that the resource generally follows the specification order, with related content covered in the same test. Tests 4, 5, 9, 10, 11, 12 and Test 17 are for A Level only and include content not required by AS students. Additionally, tests 2, 3, 19 and 20 include some questions that are 'A Level only', these have been identified within the tests themselves. If you are teaching AS students, we suggest giving out tests 19 and 20 together and getting students to complete only the questions that are applicable to them.

Each test is, on average, worth 28–45 marks in total and should take approximately 30–45 minutes to complete. However, some tests are slightly longer due to the quantity of content covered.

Topic test	Topic test title	AS spec point	A Level spec point	Total marks
1	Learning approaches	3.2.1	4.2.1	41
2	Cognitive approach			31 (AS) 47 (A Level)
3	Biological approach			15 (AS) 27 (A Level)
4	Psychodynamic approach ***(A Level only)***	N/A		36
5	Humanistic approach ***(A Level only)***	N/A		46
6	Divisions of the nervous system	3.2.1.1	4.2.2	36
7	Neurons and synaptic transmission	3.2.1.1	4.2.2	30
8	The endocrine system and the fight or flight response	3.2.1.1	4.2.2	33
9	Methods of investigating the brain	N/A	4.2.2	28
10	Localisation of function in the brain	N/A	4.2.2	30
11	Plasticity and functional recovery	N/A	4.2.2	31
12	Split-brain research and lateralisation of the brain	N/A	4.2.2	35

Continued overleaf

Topic test	Topic test title	AS spec point	A Level spec point	Total marks
13	Aims, hypotheses, sampling and piloting	3.2.3.1	4.2.3.1	42
14	Experimental design, observational design, case studies and questionnaire construction[1]	4.2.3.1	4.2.3.1	46
15	Variables, control, demand characteristics and investigator effects	3.2.3.1	4.2.3.1	43
16	Ethics, peer review and implications for the economy	3.2.3.1	4.2.3.1	32
17	Reliability, validity, features of science and reporting ***(A Level only)***	N/A	4.2.3.1	36
18	Types of data and descriptive statistics[2]	3.2.3.2	4.2.3.2	38
19	Presentation of data, distributions, correlations, levels of measurement and qualitative analysis[3] ***(mostly A Level only)***	3.2.3.2	4.2.3.2	12 (AS) 31 (A Level)
20	Inferential testing ***(mostly A Level only)***	3.2.3.2	4.2.3.2	8 (AS) 32 (A Level)

[1] This test includes questions on experimental methods, observational techniques, self-report techniques and case studies.
[2] A calculator is required for test 18
[3] This test includes questions on correlations and coding in content analysis.

November 2025

Update v1.1, November 2025 ***(to match specification changes for first teaching September 2025)***

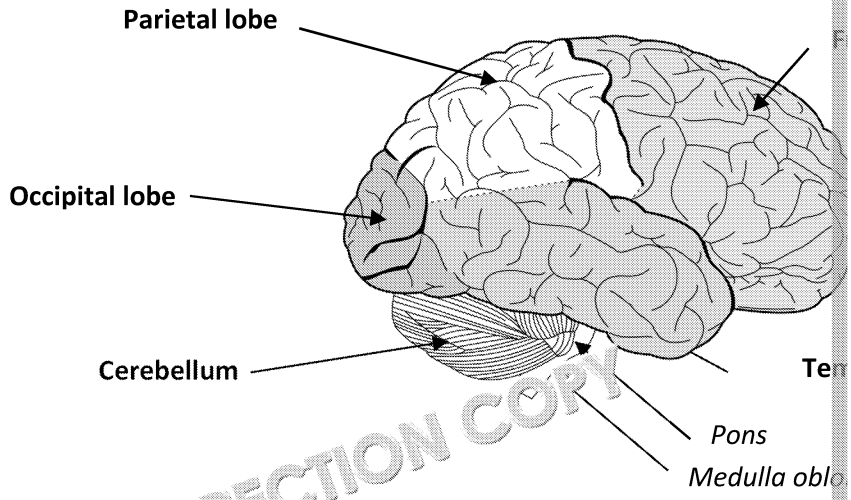
- Combined the three packs titled Topic 5: Approaches in Psychology, Topic 6: Biopsychology and Topic 7: Research Methods into a single pack titled Paper 2: Psychology in Context
- Removed test titled 'Origins of Psychology', plus answers.
- Removed reference to 'modelling' in Q9 of test titled 'Learning approaches', plus answers.
- Removed 'the emergence of' from 'cognitive neuroscience' in Q6 of test titled Cognitive approach, plus answers.
- Replaced 'genes' with 'cognitive neuroscience' in Q1 of test titled;Biological approach', as no longer in the biological approach.
- Removed test titled 'Biological rhythms', plus answers
- Moved test titled 'Methods of investigating the brain' to follow test titled 'The endocrine system and the fight or flight response'
- Removed Q1d and its answers from test titled 'Variables, control, demand characteristics and investigator effects', as the specification no longer includes 'confounding variables'
- Removed Q6 iii) and answers from test titled 'Presentation of data…', as the specification no longer includes 'Thematic analysis'
- Reworded 'sampling techniques' to 'sampling methods' in Q7 of test titled 'Aims, hypotheses, sampling and piloting'
- Reworded 'content analysis' to 'coding in content analysis' in Q6 i) of test titled 'Presentation of data…'
- Added Q5c to cover 'control groups' in test titled 'Variables, control, demand characteristics and investigator effects'

10. Localisation of function in the b

1. a. The theory which states that all parts of the brain are involved in the pr action is known as:
   a) Lateralisation theory
   b) Holistic theory
   c) Localisation the
   Wernicke's theo

   b. The theory which states that diff a. s of the brain are responsibl is known as:
   a) Lateralisati
   b) lis
   c) Localisation the
   d) Wernicke's theo

2. a. Be s a diagram of the brain. Identify the location of the somatosens auditory areas in the brain.



   b. Id th language centres of the brain, state where each langua th and outline the function of each area.

3. *Phineas Gage suffered a brain injury which destroyed part of his left frontal l impairments; however, his personality changed drastically. He went from be individual to being a rude and hostile individual.*

   a. How does the case study of Phineas Gage support the theory of localisa

   b. 'Phineas Gage's case study was influential in the psychological field.' Ev using case studies in psychological research.

   c. Brain scans are often used to show how different areas of the brain are tasks. Explain why this is seen as an advantage.

4. *Emma is watching TV when her mobile phon rings. Instead of picking up th remote control to turn down the vol the TV, Emma mistakenly touches side of her coffee mug. The c p nd Emma quickly moves her hand.*

   There are diffe s of Emma's brain which are activated.

   Outline nction of each of these areas and explain its role in the above scenario.

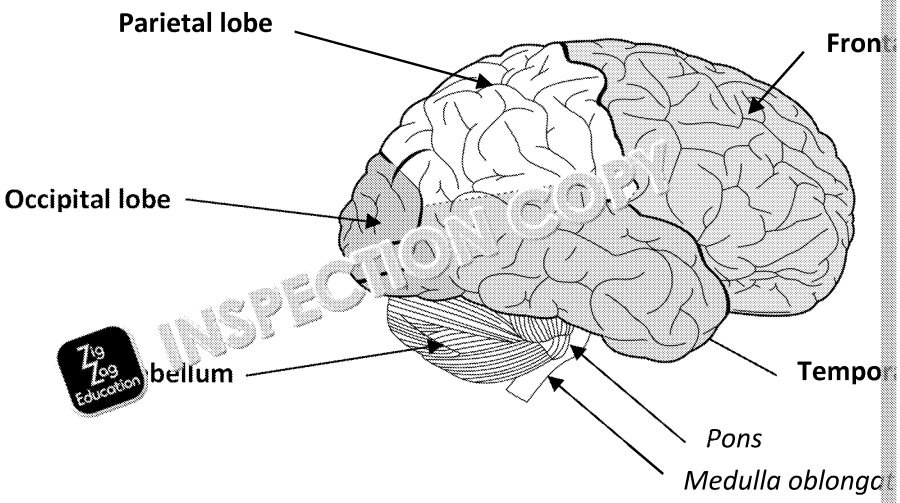
1. a. The theory which states that all parts of the brain are involved in the pr action is known as:

   a) Lateralisation theory ☐
   b) Holistic theory ☐
   c) Localisation theory ☐
   d) Wernicke's theory ☐

   b. The theor[illegible] states that different areas of the brain are responsible is [illegible] as:

   a) Lateralisation theory ☐
   b) Holistic theory ☐
   c) Localisation theory ☐
   d) Wernicke's theory ☐

2. a. Below is a diagram of the brain. Identify the location of the somatosens areas in the brain.



   Tick **one** box to show the location of each area:

	Frontal	Occipital	Parietal	T
Somatosensory area				
Visual area				
Motor area				
Auditory area				

   b. Complete the table below.
   - Identify the **two** linguistic centres of the brain.
   - State which language centre is located in the brain.
   - Outline the function of each area.

Language centre		
Location		
Function		

3. *Phineas Gage suffered a brain injury which destroyed part of his left frontal l impairments; however, his personality changed drastically. He went from be individual to being a rude and hostile individual.*

   a. How does the case study of Phineas Gage support the theory of localisa

   .....

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   b. 'Phineas Gage's case study was influential in the psychological field.' Ev using case studies in psychological research.

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   c. Brain scans are often used to show how different areas of the brain are tasks. Explain why this is seen as an advantage.

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4. *Emma is watching TV when her mobile phone rings. Instead of picking up the remote control to turn down the volume of the TV, Emma mistakenly touches the side of her coffee mug. The cup is hot and Emma quickly moves her hand.*

There are different areas of Emma's brain which are activated.

Outline the function of each of these areas and explain its role in the above scenario.

Continue answer on lined paper

Preview of Questions Ends Here

1a. ***1 mark for accurately identifying each element:***
- *Experimental design*: Repeated measures
- *Level of measurement*: Nominal data

1b. ***1 mark for each correctly identified element of carrying out a sign test:***
- Indicate the direction of change for each participant (i.e. +, - or 0).
- Add up the total of each direction to calculate the observed value (i.e. the total direction).
- Calculate N by adding up the number of participants, subtracting any with 0 di
- Look the critical value with a critical value table, using N, the hypothesis ty
- Th ence is significant if the observed value is lower than the critical valu

2b. Non-parametric tests can be used with data that is not normally distributed.

The following answers are for A Level only!

A Level only

3a. ***1 mark for each appropriate definition; for example:***
- *Type I error*: Accepting the alternative hypothesis when it is false (i.e. a false p
- *Type II error*: Accepting the null hypothesis when it is false (i.e. a false negative)

Accept suitable alternatives.

3b. ***1 mark for accurately identifying each error (sub-max. 2 marks), 1 mark for an ap (sub-max. 2 marks):***

Scenario	r Type II error?	
A researcher thinks they have found a significa difference between men and women numerical reasoning, but th is no difference in reality.	Type I error **(1)**	p
A rese th re is no difference in depre mptoms between two groups taking differe ntidepressant medications, but there is a difference in reality.	Type II error **(1)**	n

4. ***2 marks for an appropriate explanation; for example:***
- P values measure the probability of finding the effect in the sample data if the than 0.01, this means that the effect in the data would be found in less than 1 sampling error **(1)**.

Accept suitable alternatives.

5. ***1 mark for each correct match:***

Interval level data, using an independent groups design.
Interval level data, seeking to assess the relationship between two variables.
Nominal level data, using an independent groups design.
Interval level data, using a repeated measures or matched pairs design.

A Level only

6. ***1 mark for each accurately selected test (sub-max. 2 marks), 2 marks for each clea max. 4 marks); for example:***

Scenario	Test and
A researcher has carried out a study about the effects of meditation and walking on feelings of social anxiety. He used a repeated measures design, and upon initial inspection of his dat he has found that it is not normally distributed.	Wilcoxon test **(1)** The W on test is used for re As a non-parametric test, it is s distributed data **(1)**.
A psychologist has conducted some research on the association between self-esteem and political attitudes. She used Likert scale questionnaires, and her data is normally distributed.	***Either test can be accepted if s This is because there is debate is acceptable to treat Likert sca (technically, it is ordinal) and, t to use a parametric test.*** *Example justifications:* Pearson's *r* **(1)** could be used as **(1)**. This means it could be acce as quasi-interval **(1)**. **OR** Spearman's *rho* **(1)** should be us from the Likert scales **(1)**. Param be used only with interval-level

7. ***1 mark for each point:***
   - The result is not significant at the 5% significance level.
   - This is because the calculated value of *t* (1.946) is less than the critical value in t df = 18).

8. ***1 mark for each reason given for choos rson's r (sub-max. 2 marks):***
   - The researcher is testing f a relationship between variables.
   - The data is at lea vel, so a parametric test is appropriate.
   - *Ac natives.*

   1 mark ch point about significance (sub-max. 2 marks):
   - The result is significant at the 1% level.
   - This is because the calculated value of *r* (0.579) is greater than the critical valu tailed, df = 24).

Preview of Answers Ends Here