

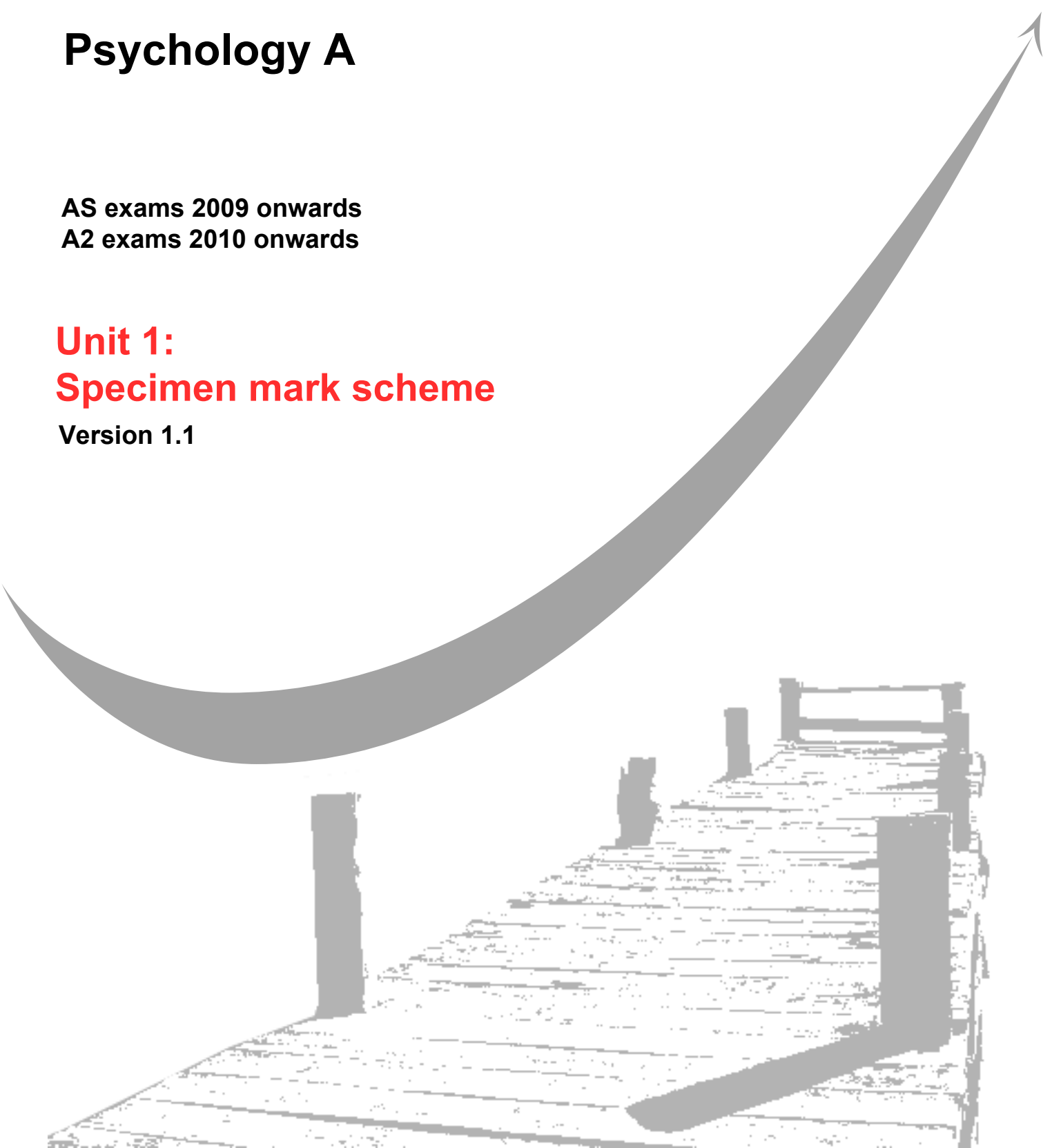
GCE
AS and A Level

Psychology A

AS exams 2009 onwards
A2 exams 2010 onwards

Unit 1: **Specimen mark scheme**

Version 1.1





General Certificate of Education

Psychology

Specification A

**Unit 1 PSYA1 Cognitive Psychology
Developmental Psychology
and Research Methods**

Specimen Mark Scheme

The specimen assessment materials are provided to give centres a reasonable idea of the general shape and character of the planned question papers and mark schemes in advance of the first operational exams.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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SECTION A – COGNITIVE PSYCHOLOGY AND RESEARCH METHODS
1**Total for this question: 5 marks**

(a) Using the list below, complete the table to distinguish between long-term memory and short-term memory. *(3 marks)*

AO1 = 3 marks Correct completion of the table

One mark for duration, one for capacity and one for encoding. In each case, both terms need to be correct to gain the mark.

	STM	LTM
Capacity	7 +/- 2 items	Unlimited
Duration	Seconds	Up to a lifetime
Encoding	Mainly acoustic	Mainly semantic

(b) Using the multi-store model of memory, outline how information is transferred from short-term memory to long-term memory. *(2 marks)*

AO1 = 2 marks Outline of the process

One mark for identification of rehearsal as the mechanism of transfer. A further mark for elaboration: for example, rehearsal allows material to remain in the STM, which only has a limited capacity and duration, until it is put into the LT store, which has an unlimited capacity.

2**Total for this question: 10 marks**

(a) Outline key features of the working memory model. *(6 marks)*

AO1 = 6 marks For identification of components of the model and brief outline of their function

Likely features are the three main components:

- central executive, in charge of co-ordinating the other two 'slave' systems, involved in attention and higher mental processes. It has limited capacity and can process information from any mode.
- phonological loop involved in holding speech-based information and articulatory control processes inner speech
- visuo-spatial scratchpad deals with visual/spatial information and is involved in pattern recognition, perception of movement.

6 marks Accurate and reasonably detailed Accurate and reasonably detailed outline of the working memory model that demonstrates sound knowledge and understanding of both structure and function. There is appropriate selection of material to address the question.
5-4 marks Less detailed but generally accurate Less detailed but generally accurate outline of the working memory model that demonstrates knowledge and understanding of structure and/or function. There is some evidence of selection of material to address the question.
3-2 marks Basic Basic outline of the working memory model that correctly identifies the three main components but further detail may be muddled. There is limited evidence of selection of material to address the question.
1 mark Very brief/flawed or inappropriate Very brief or flawed outline of the working memory model demonstrating very little knowledge. Selection and presentation of information is largely or wholly inappropriate.
0 marks No creditworthy material.

(b) Explain **one** strength of the working memory model. *(4 marks)*

AO2 = 4 marks Explanation of one strength of WMM

One mark for stating the strength, further marks for an elaboration of the strength. Possible strengths include support from empirical evidence, shows that STM is more complex than suggested by the MSM, shows STM better seen as number of relatively independent processing mechanisms than a unitary store, explains ability to do two tasks requiring different slave systems and impairment if tasks both require the same system.

For example, its strength is that it has better explanatory power than the MSM (sufficient for 1 mark). It can explain how it is possible to carry out more than one task at a time but that if tasks both require the same system, ability is impaired (elaboration for further 2 marks). Further mark could be gained by more detailed reference to the phonological loop, visuo-spatial sketchpad and central executive or reference to evidence from studies.

3 **Total for this question: 6 marks**

Kate is revising for her driving theory test. She needs to remember a variety of information such as rules relating to speed limits and stopping distances.

Outline **two** strategies that Kate might use to improve her recall and explain why **each** of the strategies that you suggest should improve recall. *(6 marks)*

AO2 = 6 marks Applying knowledge of memory research to this particular situation

One mark for each strategy appropriate to the stem and two marks for the justification of each strategy. The justification may refer to memory research and/or the particular nature of the material to be remembered as indicated in the scenario.

Likely strategies:

Organisation of information, imagery, rhyme, mnemonics.

For example, the strategy identified is mnemonics, ie making up words where each letter stands for a fact that has to be remembered (1 mark). This should help her recall because she only has to remember the word and all the letters will act as cues and the process of creating the mnemonic will have involved elaboration which should further aid memorising the rules.

4

Total for this question: 8 marks

(a) One of the questions below is a leading question. Identify which is a leading question, **A** or **B**, and explain why it is a leading question.

A "Did you see a man crossing the road?"

B "Did you see the man crossing the road?"

(3 marks)

AO1 = 1 mark

Correct identification of leading question

AO2 = 2 marks

Appropriate explanation of why question B is a leading question

One mark AO1 for correct identification of B

Up to 2 marks AO2 for the explanation.

For example, explaining that B is a leading question because it implies that there was in fact a man crossing the road, by using the word "the" in the question. It suggests that the man crossing the road was a fact (3 marks).

B is a leading question because it uses the word "the" and makes it sound definite (2 marks).

(b) Explain why studies of eyewitness testimony have been criticised as lacking validity. *(5 marks)*

AO3 = 5 marks

Explanation that demonstrates understanding of validity and knowledge of the studies

The most likely focus is on the supposed lack of ecological validity of much of this research in terms of:

- laboratory environment in which the research was undertaken
- participants not being emotionally aroused as in a real incident or not feeling the same responsibility
- the tasks lacking realism as participants viewed a video, not the real incident.

Where candidates refer to studies, this may be credited in so far as it is focused on validity and enhances the explanation.

5**Total for this question: 7 marks**

In order to investigate encoding in memory, an experimenter gave participants two lists of words. **List A** contained 10 acoustically similar words and **List B** contained 10 semantically similar words.

Each participant read aloud **List A** and then recalled the words in the list. Then each participant read aloud **List B** and recalled the words in this list. The number of words correctly recalled in each condition was recorded, and compared to see whether participants remembered more words from **List A** or **List B**.

(a) What factors, other than the acoustic and semantic encoding, would the experimenter have to consider when selecting words for the lists? (3 marks)

AO3 = 3 marks Identification of two or more additional factors

Factors might include word length, word frequency, comparability of words, familiarity to the sample used in the study.

One mark for general point, eg comparable word length or frequency and 1 mark each for points specific to the semantic and acoustic lists.

(b) Which type of design was used in this investigation? Tick the correct box.

- Repeated measures
- Independent groups
- Matched participants

(1 mark)

AO3 = 1 mark for repeated measures design

(c) Identify **one** flaw in the design of this investigation and explain how the experimenter could have overcome this flaw. (3 marks)

AO3 = 3 marks Identifying flaw and explaining strategy to overcome this flaw

One mark for identifying an appropriate flaw. Two further marks for explanation of how this could be overcome.

For example, one flaw could be order effects. This could be overcome by counterbalancing, that is, having some participants learn List A followed by List B, while other participants learn the lists in the opposite way round. Other appropriate flaws should be credited.

SECTION B – DEVELOPMENTAL PSYCHOLOGY AND RESEARCH METHODS**6****Total for this question: 2 marks**

Outline two behaviours that are characteristic of a securely attached infant. (2 marks)

AO1 = 2 marks Brief outline of two behaviours, 1 mark for each behaviour

Behaviours that are characteristic of a securely attached infant:

- will use caregiver as a safe base and explore strange environments
- shows distress when separated from caregiver and pleasure on reunion
- is easily comforted by caregiver when distressed.

7**Total for this question: 8 marks**

(a) Outline the behavioural explanation of attachment formation. (4 marks)
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AO1 = 4 marks Outline of the main features of the behavioural explanation

Attachment is learned through conditioning.

Attachment bond is the product of association between the pleasure of food and the feeder (credit more detailed description and use of appropriate terminology UCS, CS, etc). Alternatively, an operant conditioning explanation could be provided in terms of reinforcement. Cupboard love explanation. Infants become attached to the person who feeds them.

(b) Explain how the behavioural explanation of attachment differs from the evolutionary explanation of attachment. (4 marks)
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AO2 = 4 marks Explanation of one or more differences.

- Infants are innately programmed to form attachments; attachment is a biological process rather than learned
- Attachment is learned and can be relearned, thus there is no critical period and the effects can be reversed
- Attachment creates a template for relationships
- We become attached to warm comforting figure rather than the source of food.

Candidates who merely list features of the evolutionary explanation may gain up to 2 marks. To gain full marks, candidates need to explain the difference. Credit explanations in terms of differences in the supposed consequences/implications.

8**Total for this question: 14 marks**

A psychologist wished to investigate early child development. She decided to interview some mothers and ask them questions about their child's social behaviour.

(a) Explain **one** disadvantage of using an interview to collect these data. *(2 marks)*

AO3 = 2 marks Explanation of one disadvantage

One mark for statement of a disadvantage, one further mark for elaboration which might indicate the implications/consequences of interviewing mothers to obtain these data.

Disadvantages include:

- Dishonesty, tendency of mothers to provide a socially desirable response
- Time consuming
- Investigator might influence responses, eg age/sex of investigator
- Ability of interviewer to record detail accurately in unbiased way.

For example, the disadvantage is that people might not tell the truth (1 mark). Mothers might want to put themselves in a good light and exaggerate certain behaviours suggesting their child is more advanced (2nd mark for elaboration).

(b) Write **one** question that the psychologist could ask mothers about their child's social behaviour that would generate **qualitative** data. *(2 marks)*

AO3 = 2 marks One mark for selection of appropriate topic
One mark for wording as an open question that would give a response in words

For example, "Describe how your child reacts when you leave him/her with a stranger".

(c) Explain **one** strength of qualitative data. *(2 marks)*

AO2 = 2 marks Identification of relevant strength and elaboration that explains why this is a strength

For example - the strength of qualitative data is that it can give a great deal of rich and varied information (1 mark). This better represents the complexities of human behaviour (1 mark).

The researcher then decided to undertake an observational study of aggression in toddlers.

- (d) Explain how variations in aggressive behaviour of toddlers could be categorised for this observation. *(4 marks)*

AO3 = 4 marks Explanation that shows knowledge of young children's social behaviour **and** use of categorisation in observational studies

Aggression could be categorised in a variety of ways, distinguishing verbal versus physical aggression or subcategories of these. Physical might be categorised into pushing, hitting, biting, pinching, snatching. The behaviours should be observable and appropriate to toddlers.

Better answer will make reference to the need to define the behaviours to ensure reliable categorisation.

- (e) (i) Explain **one** ethical issue relevant to observational studies of young children. *(2 marks)*

AO3 = 2 marks Explanation that shows understanding of ethical issues and understanding of the particular issues of research involving children

Of particular relevance to studies of young children are:

- informed consent – as these are young children, they are unable to give consent
- confidentiality – as the study involves a behaviour that is not socially desirable, it is important that the aggressiveness of particular children is not disclosed.

- (e) (ii) Explain how the researcher could deal with this ethical issue. *(2 marks)*

AO3 = 2 marks Explanation of a strategy that appropriately addresses the issue in (i)

- Informed consent – strategy should refer to written consent of parent/guardian, having received full information about the aim of the study and procedure.
- Confidentiality – strategy should refer to removing names from observation records and other criteria that permit a child to be identified (eg record gender when there is only one girl in the group).

9**Total for this question: 12 marks**

Outline and evaluate research into the effects of day care on social development, (eg aggression, peer relations). (12 marks)

AO1 = 6 marks

Outline of research into the effects of day care

AO2 = 6 marks

Evaluation of the research: in terms of its methodology, contradictory findings, conclusions about whether day care has a beneficial effect, its implications for policy and practices

Candidates may outline research methodology and/or findings or could outline relevant theory. There is a wide range of studies they might refer to; Melhuish et al (1990) comparison of nursery care, childminding, and care by relatives. Belsky (1986, 1990) found prolonged daily separation of young children from their mothers is detrimental to their social development. Violato & Russel (1994) meta analysis of 88 studies showed negative effects on social behaviour of 20+ hrs pw child care NICHD (2001).

Andersson (1992) high quality day care can make a positive contribution to later social development. Clarke-Stewart et al (1991) (1994) found children in day care coped better in social situations and negotiated better with peers. Shea's (1981) study of playground behaviour found that the sociability (as measured by aggression and frequency of peer interaction) of 3 and 4 year olds increased over their first 10 weeks at nursery school. Vandell (1998) children in better quality care have more friendly and fewer unfriendly interactions with peers.

Evaluation is likely to focus on research methodology, findings and implications. Variations in findings are difficult to resolve because studies have:

- focused on different forms of day care
- investigated different variables (duration of care in hours per week, quality of care, age of child), employed different data collection techniques (interview , ratings, observation)
- it is difficult to draw inference as the effects of day care are complicated by a number of variables and it is difficult to tease out the social effects as a result of day care and those as a result of other variables which may exist (eg separation or physical deprivation, mother's sensitivity, income and education of the parents)
- causal inferences cannot be drawn from the studies.

Research does, however, suggest that improving the consistency of care and quality in terms of emotional sensitivity of carers is likely to benefit social development.

AO1 Knowledge and understanding	AO2 Application of knowledge and understanding
<p>6 marks Accurate and reasonably detailed Accurate and reasonably detailed description that demonstrates sound knowledge and understanding. There is appropriate selection of material to address the question. Presentation of information is clear and coherent.</p>	<p>6 marks Effective evaluation Effective use of material to address the question and provide informed commentary. Effective evaluation of research. Broad range of issues and/or evidence in reasonable depth, or a narrower range in greater depth. Clear expression of ideas, good range of specialist terms, few errors of grammar, punctuation and spelling.</p>
<p>5-4 marks Less detailed but generally accurate Less detailed but generally accurate description that demonstrates relevant knowledge and understanding. There is some evidence of selection of material to address the question. Information is presented in an appropriate form.</p>	<p>5-4 marks Reasonable evaluation Material is not always used effectively but produces a reasonable commentary. Reasonable evaluation of research. A range of issues and/or evidence in limited depth, or a narrower range in greater depth. Reasonable expression of ideas, a range of specialist terms, some errors of grammar, punctuation and spelling.</p>
<p>3-2 marks Basic Basic description that demonstrates some relevant knowledge and understanding but lacks detail and may be muddled. There is little evidence of selection of material to address the question. Information is not presented in an appropriate form.</p>	<p>3-2 marks Basic evaluation The use of material provides only a basic commentary. Basic evaluation or research. Superficial consideration of a restricted range of issues and/or evidence. Expression of ideas lacks clarity, some specialist terms used, errors of grammar, punctuation and spelling detract from clarity.</p>
<p>1 mark Very brief/flawed Very brief or flawed description that demonstrates very little knowledge or understanding of research. Selection and presentation of information is largely or wholly inappropriate.</p>	<p>1 mark Rudimentary evaluation The use of material provides only a rudimentary commentary. Evaluation of research is just discernible or absent. Expression of ideas poor, few specialist terms used, errors of grammar, punctuation and spelling often obscure the meaning.</p>
<p>0 marks No creditworthy material presented.</p>	<p>0 marks No creditworthy material presented.</p>

ASSESSMENT OBJECTIVES UNIT 1

Question	AO1 mark	AO2 mark	AO3 mark	Total
1a	3			
1b	2			
2a	6			
2b		4		
3		6		
4a	1	2		
4b			5	
5a			3	
5b			1	
5c			3	
Cognitive Totals	12	12	12	36
6	2			
7a	4			
7b		4		
8a			2	
8b			2	
8c		2		
8d			4	
8e(i)			2	
8e(ii)			2	
9	6	6		
Developmental and Research Totals	12	12	12	36
TOTALS	24	24	24	72